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ABSTRACT

The worksheets contained in this bulletin are designed for use in conjunction with the teaching strategies for Theme V entitled, "The Industrial Revolution Had Global Impact." The worksheets correspond to specific strategies with accompanying questions on the appropriate strategy page. Included are activities for the seven subthemes: (1) Preindustrial Society; (2) Certain Economic, Political, and Scientific Conditions Were Essential for Industrial Development; (3) New Inventions Change Economic Life; (4) Abuses of the Industrial Revolution Lead to Protest and Response; (5) Social and Economic Effects of the Industrial Revolution; (6) The Industrial Revolution Affected Ideologies; and (7) Japan: A Case Study. In order to sensitize students to the existence of a shared cultural legacy, the Global Cultural Bank activity is included. This may be used as the culminating exercise for each subtheme. (KWL)

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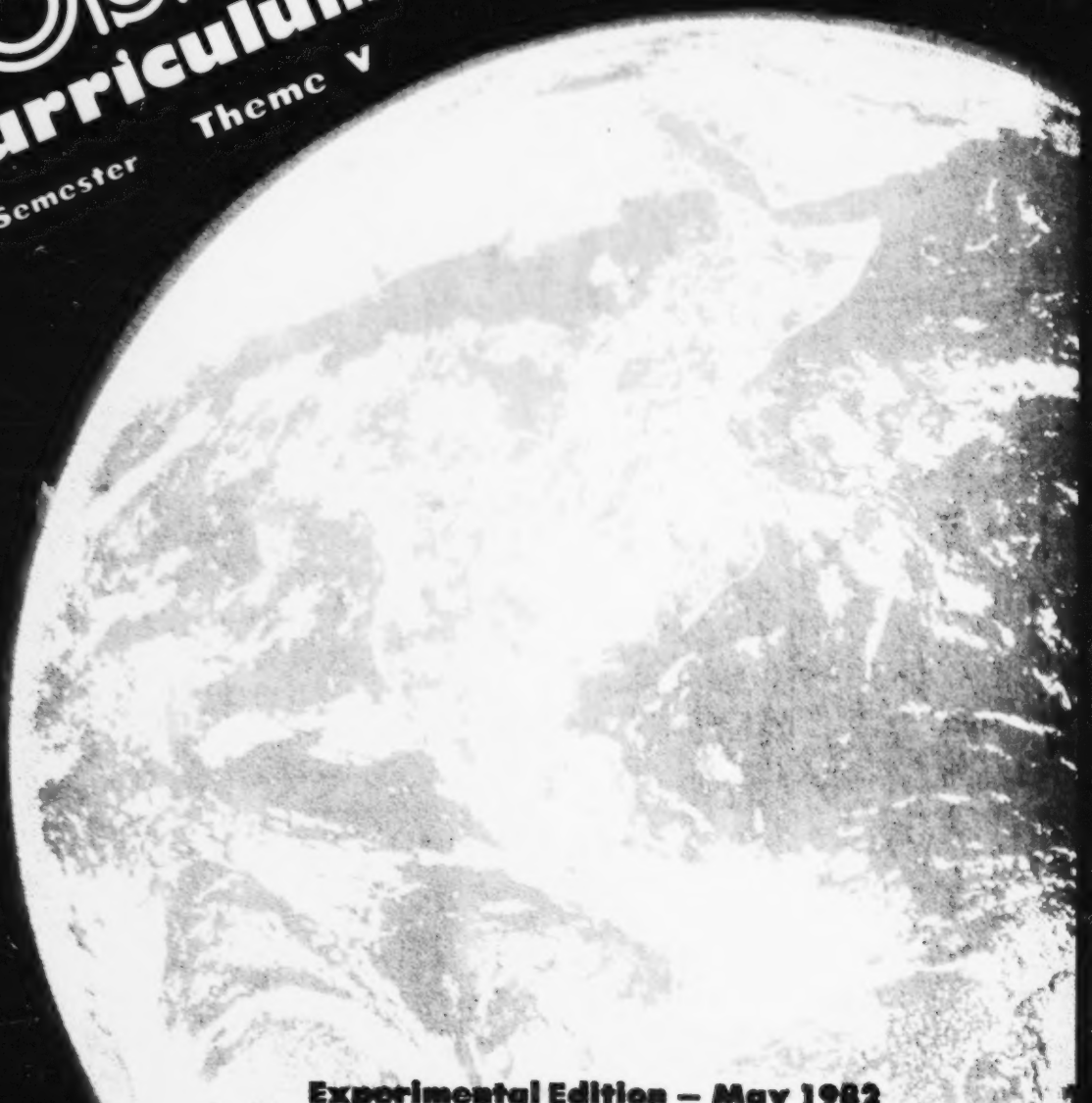
Student Worksheets

GLOBAL HISTORY

A Curriculum Guide

Second Semester Theme V



Experimental Edition – May 1982

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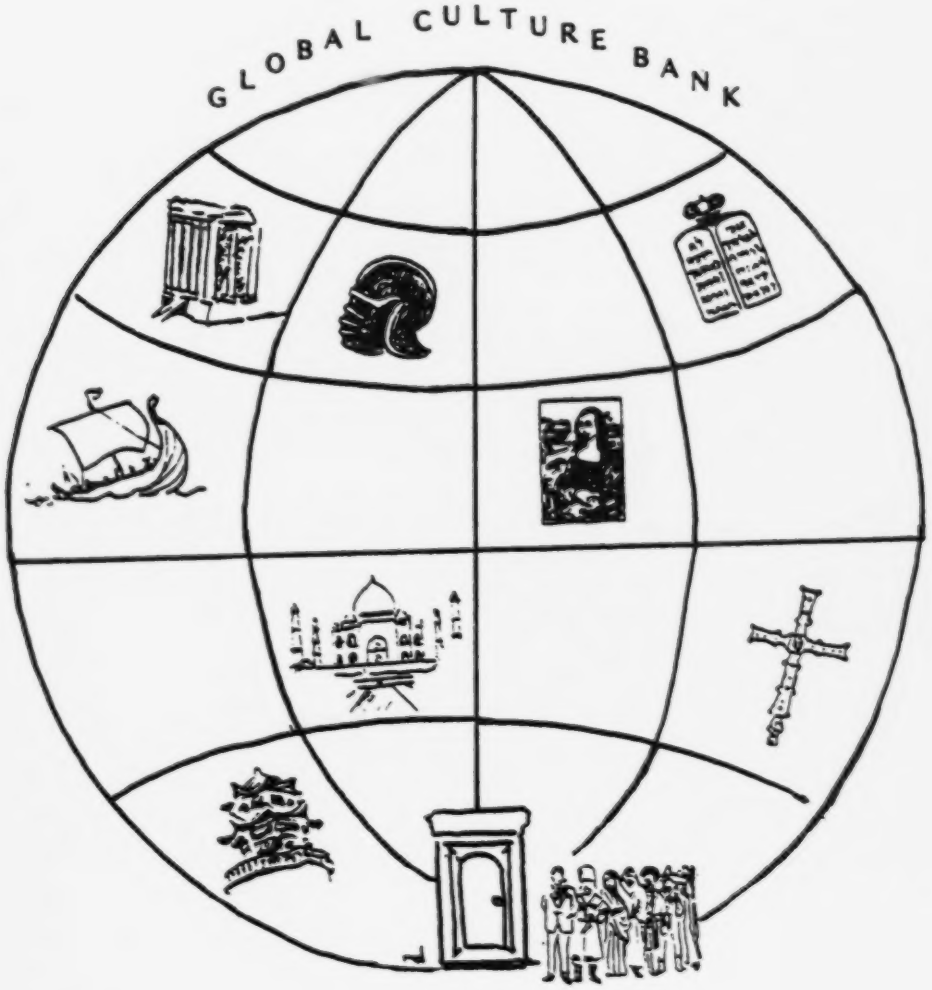
NOTE TO THE TEACHER:

These worksheets are intended for use in conjunction with the teaching strategies included in Global History: Second Semester, Theme V. To facilitate the use of these materials, each worksheet has been coded to correspond to a specific strategy; the questions which accompany each worksheet are included on the appropriate strategy page.

The Global Culture Bank

A major objective of the Global History Course is to demonstrate to students the cultural impact of one civilization on another. Students should understand that many elements which make up the "American way of life" have in fact been borrowed from other cultures. Throughout history, the peoples who have inhabited the earth have participated in the process of contributing to and borrowing from a common cultural depository -- a Global Culture Bank.

In order to sensitize students to the existence of this shared cultural legacy, we have included the Global Culture Bank activity which may be used as the culminating exercise for each subtheme. Directions for using the Culture Bank appear above columns 1-5 of the page that follows.



Account Name	Rating & Reason	Cultural Deposits	Cultural Borrowing	Balance
(The major topics you will be studying this term in Global History are listed below. In spaces provided in this column list the most important events or people discussed in the sub-theme.)	In the spaces below give the event or person listed in column (1) one of the following ratings: **(1)** important in one area of the world and time **(2)** important in two areas **(3)** important in two areas or more areas over several time periods **(4)** important through history for many areas to the present **(5)** important for the whole world to the present day	In the spaces below list those things which you believe the civilization or period of time discussed in this sub-theme, have contributed to the Culture Bank	In the spaces below list those things which you believe the civilization or period of time discussed in this sub-theme have borrowed from other cultures.	In this space students should write a paragraph answering the question: "Have there been contributions to the progress of humanity made by this civilization or during this period of time?" (You may include new inventions, technological improvements, expansion of human rights, new discoveries to improve the quality of life, advances in learning and any other categories agreed upon by the class.)
A. Preindustrial Society				
B. Conditions				

Account Name	Rating and Reason	Cultural Deposits	Cultural Borrowing	Balance
C. Inventions				
D. Abuses				
E. Effects				
F. Ideologies				
G. Japan				

An English Farmyard

	THEN (Preindustrial Society) List activities from picture.	NOW (Industrial Society) Write "S" if things are the same today. Write "D" if things are different today.
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Reprinted with permission of the BBC Hulton Picture Library.

Life in England Before the Industrial Revolution

Tom and Anne Moore live in the village of Farmington. They are both thirty-five years old. Anne has been married before, but her first husband died two years after the marriage. The Moores have three children, ages six, four, and one. They had another child, but it died soon after birth.

The Moores rent a cottage made of stone and clay, with a thatched roof. The cottage has only one room, with a big fireplace for heat and cooking. There are two beds, one for the parents and one for the two children, and a cradle for the baby. There is a small area behind the beds, where the animals — a cow and ten chickens — are kept at night. The floor is made of boards laid over the bare ground, which makes the house damp, especially in winter. (The child that died was born in the winter.) They have a wooden table and chairs, knives and forks, glasses, and simple earthenware dishes. They have no running water (it must be carried from the village pump) and, of course, no toilet. The cottage is on one acre of land, which the Moores use to grow their own vegetables.

Tom Moore works as a farm laborer for George Thompson, who owns 200 acres of land. (The average size of farms in Buckinghamshire at this time is 179 acres.) This farm is made up of several different strips of land scattered around the village. Tom helps with the plowing, sowing the seeds, and harvesting the grain (wheat and oats). In the summer, especially during the harvest, he works from dawn (4-5 A.M.) to dusk (8-9 P.M.). George Thompson generally works along with Tom and three other farm workers. In addition to receiving wages, the workers eat their midday meal at the farmhouse along with the Thompson family. In winter, when there is no regular farm work, Tom does odd jobs for George Thompson and other farmers.

Anne Moore is up at dawn every day to milk the cow. During the day, the cow is taken to pasture by a boy who takes care of all the cows in the village. The Moores' cow grazes with the other cows and sheep on common meadows, which are areas of land belonging to the village as a whole. Sometimes they also graze on the fields of farmers such as George Thompson, as long as it is not the growing season.

Anne makes most of the cow's milk into butter and cheese. Using a hand churn, it takes her about two and a half hours to make butter. Making cheese takes eight to ten hours. Some of the butter and cheese is eaten by the family, but once or twice a week Anne takes the rest to the market in the town of Marshton, 10 miles (16 kilometers) away. She usually rides on a neighbor's horse-drawn wagon, and they must leave by 4 A.M. in order to reach the market when it opens at 6 A.M.

Anne also grows vegetables in the garden, tends the chickens, cooks, takes care of the house, and makes the family's clothes. Her six-year-old daughter helps in the house and garden and takes care of the younger children.

After the harvest, Anne has the right to glean, or pick up any stray pieces of grain left behind in the fields of everyone in the village. She usually gathers about five bushels of wheat, or enough to make bread for the family for ten weeks. She also has the right to gather fallen wood in the village forest to use as fuel for cooking and for heating the house in winter.

From *The Impact of Industrial Revolution* by Nicholas B. Fessenden. Copyright © 1978 by Harcourt Brace Jovanovich, Inc. Reprinted by permission of the publisher, pp. 11-13.

DIRECTIONS:

- Write a report using the situation and the set of notes given below. Read carefully all the information before you write.

SITUATION:

Your class is studying the Industrial Revolution in eighteenth century England. You are asked to write a report about the conditions in the rural areas before industrialization. You have read a book about a typical family, that of Anne and Tom Moore. In your report explain if you would have liked to live in the Moore's village in the period before the Industrial Revolution. Below are the notes you made about the conditions under which they lived. Organize these notes into a written report. To help you organize and write your report, be sure to:

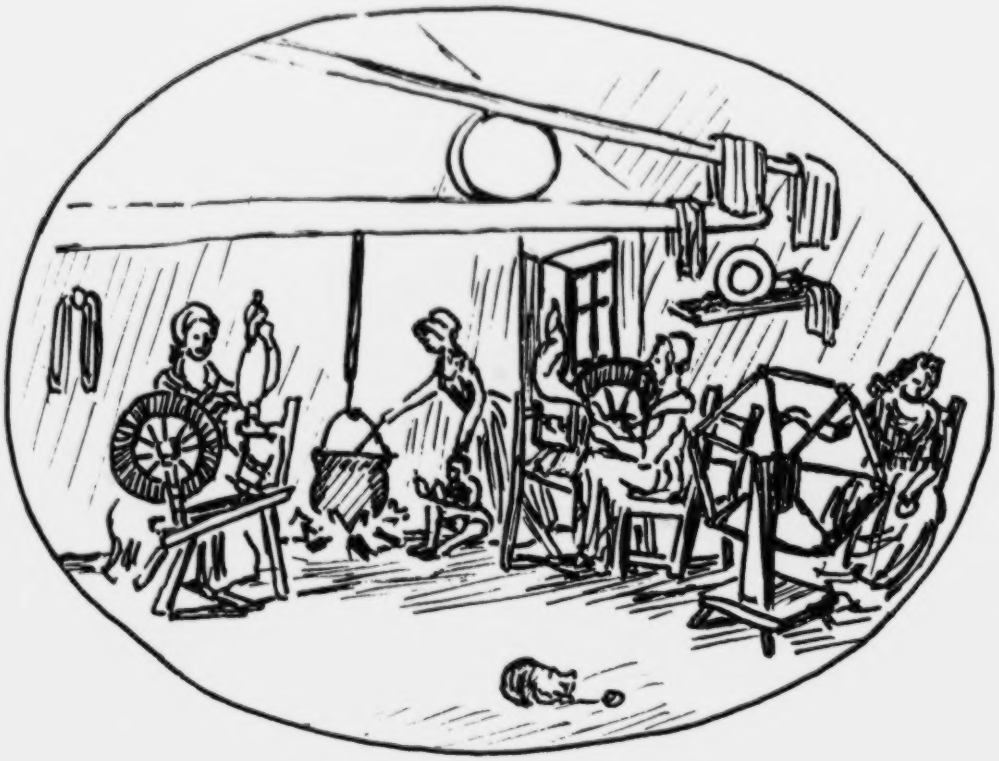
- Keep in mind that you are writing the report for your class.
- Rearrange the notes on scrap paper before you start to write your first draft.
- Include all the information in the notes.

Notes:

- Anne sells cheese from her cow in the market.
- Tom and Anne Moore rent a stone cottage.
- Tom works for Mr. Thompson.
- Tom and Anne live in Farmington, England.
- In the busy season, Tom works from 5 A.M. to 8 P.M.
- Anne Moore raises milk cows.
- Mr. Thompson's farm consists of strips of land located throughout the village.
- Anne raises vegetables for her family in a small garden behind her cottage.
- All cows graze on the village common land.
- The Moores have no running water or toilet in their house.
- The floor of the Moore's cottage consists of wooden boards over the bare ground.

The Domestic System

Before the existence of factories, goods were produced much in the same way as in the drawing below.



Drawing based on painting, reprinted with permission of Merrimack Valley Textile Museum/Mass..

Subtheme A *Preindustrial Society*

Worksheet A-4

Title: _____

Write in the title in the above space and number the following paragraphs in the proper order using the numbers 1 - 6.

a.____ In summarizing the many contributions of the Chinese to European civilizaion, one can say that new scholarship is continually discovering new contributions from that early time.

b.____ Like silk and porcelain, a form of gunpowder also originated in China and was carried to Europe, probably before 1500. The changes in manufacturing which led to the making of true gunpowder occurred later in China and in the European countries at about the same time.

c.____ Still another contribution of the Chinese was the compass, which was fully described in a Chinese work of the eleventh century and probably came to Europe through the Arabs. Papermaking and block printing probably came to Europe by the same route around the fourteenth century, as traders brought printed playing cards, paper money, and religious image prints.

d.____ One of the first contributions of China to the West was the knowledge of silk-making. At first silk and silk products were traded and then the technology of raising silkworms and using machines to make silk from the cocoons of the silkworms spread to the West through Byzantium. In fourteenth century Italy, they applied water power to spinning mills as the Chinese had done much earlier.

e.____ The history of the exchange of technology between China and the West has gone through many changes. Since the industrialization of the West new technology has been flowing more from the West to China. But before 1500 more new knowledge and many fundamental inventions originated in China and spread from China to the West.

f.____ Another very early contribution was Chinese porcelain, called china even today. European craftsmen had made pottery and glass, but these beautiful porcelain bowls, plates, and vases were as delicate as glass with the designs of pottery. Europeans tried to duplicate the making of "china" but were not able to discover the exact process until the eighteenth century.

From Donald F. Lach, *Asia in the Making of Europe*, Vol. 1, Book 1 (Chicago, Ill.: The University of Chicago Press, 1965), pp. 72-73.

- Based on this reading, list the achievements (use column A below) which the author credits to China. Next to each of these achievements, using the scale below, circle the number that most accurately reflects the importance of each achievement as it affected global history.

5	4	3	2	1	0
modern society could not do without this	of great importance to modern society	of importance to modern society	somewhat important to modern society	of little importance	of no importance to modern society

A	B					
	5	4	3	2	1	0
1) _____						
2) _____						
3) _____						
4) _____						
5) _____						
6) _____						
7) _____						

First Factories in England

The poem below describes a woolen factory operated by John Winchcombe, known as Jack of Newberry. The surprising freature of this enterprise is that it existed as early as the sixteenth century. These first factories were simply buildings in which a number of people worked with the hand tools available.

Within one room being large and long
There stood two hundred looms full strong;
Two hundred men the truth is so
Wrought in these looms all in a row.
By every one a pretty boy
Sat making quills with [little] joy.
And in another place hard by,
A hundred women merrily
Were carding (cleaning wool with a card) hard with joyful cheer
Who singing sat with voices clear.
And in a chamber close beside,
Two hundred maidens did abide,
In petticoats of Stammell red,
And milk-white [kerchiefs] on their head...
Those pretty maids did never lin (cease)
But in that place all day did spin....
Then in another room came they
Where children were in poor array
And everyone sat picking wool,
The finest from the course to cull....
Within another place likewise
Full fifty proper men he spies,
And these were shearmen every one....
And hard by them there did remain
Full fourscore rowers taking pain.
A dye-house likewise had he then,
Wherein he kept full forty men:
And likewise in his fulling (shrinking) mill
Full twenty persons kept he still.

Adapted from E. Lipson, *The History of the Woollen and Worsted Industries* (Totowa, N.J.: Biblio Distribution Centre, 1921), pp. 46-47.

What Makes a Great Industrial Nation?

Some of the important ingredients necessary for making a great industrial nation appear in the chart below:

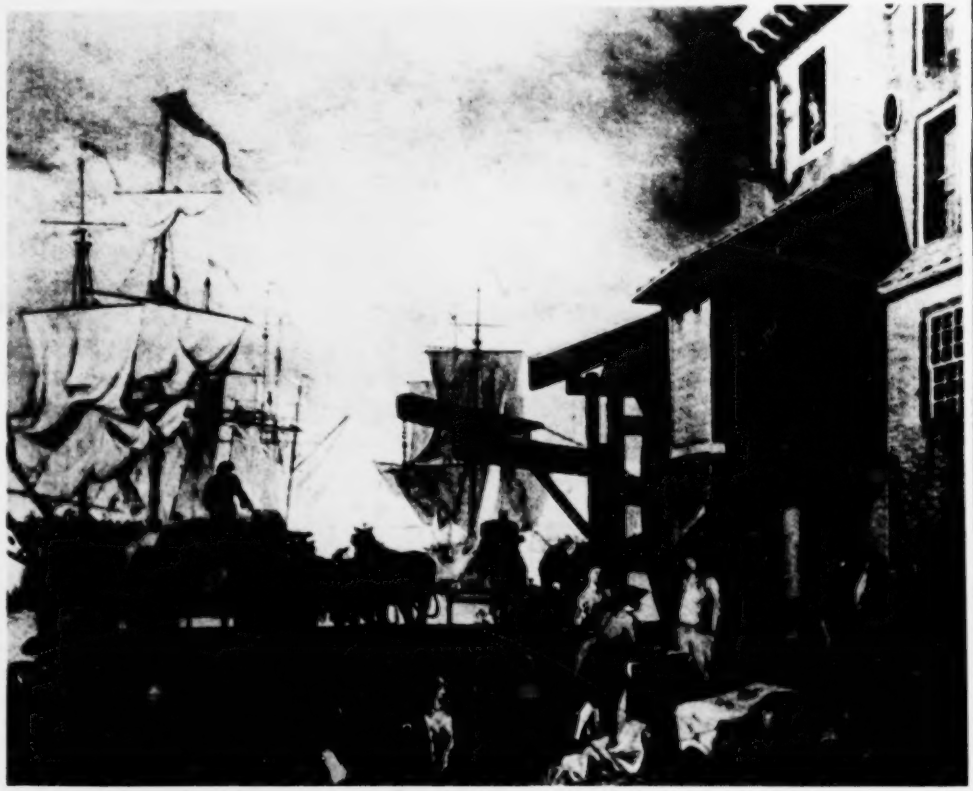
From University of the State of New York, *Teaching World History* (Albany, N.Y.: The State Education Department, 1965), p. 118.

A

Facts about England
in the Nineteenth Century

1. In 1801, the population of England and Wales was 9,187,176 and was increasing rapidly.
2. Government was stable and highly traditional.
3. Over nine cities had populations over 100,000 in the nineteenth century.
4. Englishmen invested over 288 million pounds in railroads by 1860.
5. Large coal and iron deposits were found in north central England.
6. England was publishing 4,100 books yearly in 1860 and spending over nine million pounds on public education.
7. England was importing more and more foodstuffs in the nineteenth century.
8. By 1860, England had 7,563 miles of railroad, 6,600 miles of canals, and was shipping over 4,500,000 tons of goods a year.

B



From Bureau of Curriculum Development, *World Studies — Grade 10* (New York: Board of Education, 1968), p. 136.

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C

From Muriel Platt and Nathaniel Drummond, *Our World Through the Ages* (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1971), p. 406.

D

PREMIUMS

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By J. BROWNE, Bridge - Street, near the City Obelisk.

M.DCC.LXXVI.

From Herbert Heaton, *Economic History of Europe* (New York: Harper & Row, Publishers, Inc., 1948), abridgment of pp. 407-408, 482-483, Copyright © 1936, 1948 by Harper & Row, Publishers, Inc. Reprinted by permission.

Comparison Chart

Economic	
Social	
Political	

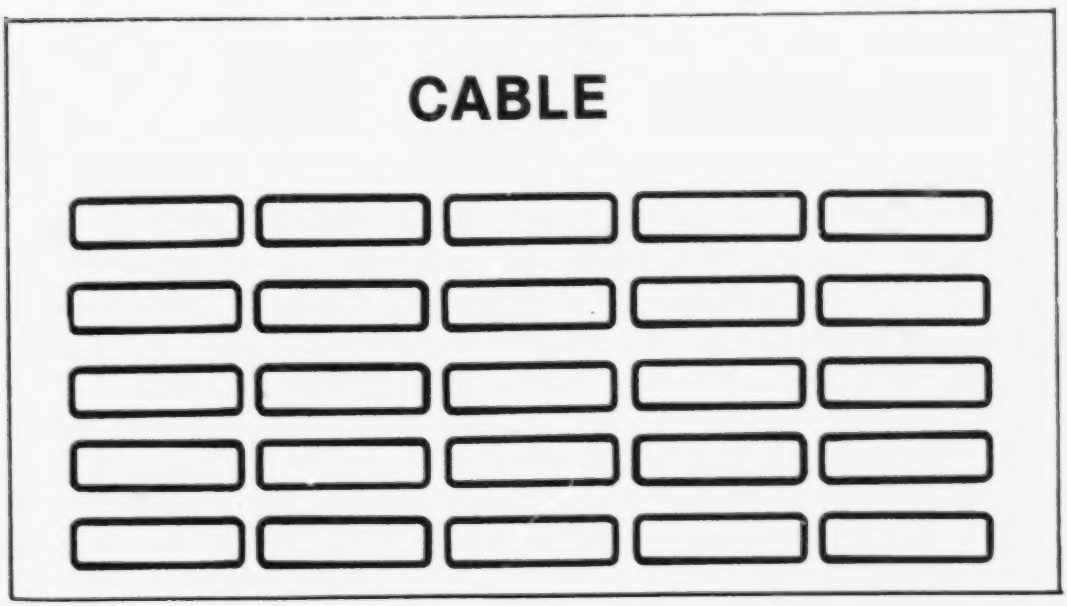
Why England First?

An account of why England was the first nation to industrialize appears below:

> Why was England the first state to take off? France is richer and more populous. The Dutch have more economic know-how. Yet the Dutch are too interested in trade and have forgotten about manufacturing. The French have been too involved in their own revolution to be concerned with industry. Also, at a time when ships are so important, the French have concentrated on ground warfare. English victories over the Pope and Spain (sixteenth century), the Dutch (seventeenth century), and the French (recently) have given the English great drive and confidence. Trade with her colonies brought her capital and profits. She has large and easy-to-reach deposits of coal and iron. The Enclosure Acts drove peasants from the fields to the towns, where they have added to the labor force available for factories. England's constitutional government worked to help business.

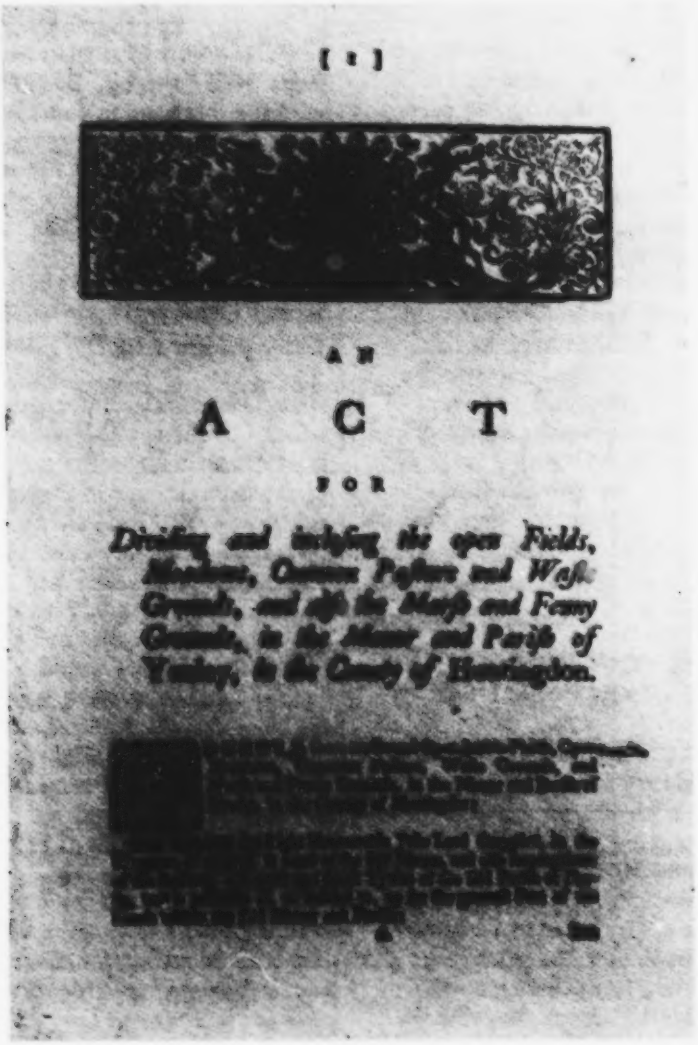
Assume that you are an American spy sent to England to find out England's industrial secrets. Your notes appear above. However, you have to send them back in the telegram below and they must be contained in a message of 25 words or less. Write the message you would send.

Adapted from Rostow, *The Stages of Economic Growth* (New York: Cambridge University Press, 1960), p. 33.



Enclosure Act

Many farmers were forced off the land they worked by Enclosure Acts such as the one below. If you had been a farmer, you might have discovered the following poster on the land you were farming:



AN

A C T

FOR

Dividing and inclosing the open Fields, Meadows, Common Pasture and Waste Grounds, and also the Marsh and Fenny Grounds, in the Manor and Parish of Yaxley, in the County of Huntingdon.

From Margaret Killingray, *The Agricultural Revolution* (St. Paul, Minn.: Greenhaven Press, Inc., 1980), p. 6.

The Agricultural Revolution

Using the numbers 1 (for most important) through 8 (for least important), rate the importance to the industrial revolution of each of these inventions:

Rating	Name	Invention	Importance
___	Jethro Tull (England)	Seed drill. Horse-drawn cultivation.	Planted seeds in straight rows. Eliminated weeds and loosened the soil.
___	Lord Townshend (England)	Crop rotation.	Showed how to keep soil fertile by rotating crops. Helped to end the three field system.
___	Robert Bakewell (England)	Stock breeding.	Improved the weight and size of cattle and sheep; produced more milk, beef, and wool.
___	Arthur Young (England)	Agricultural writer.	Made these new methods and inventions popular.
___	Jethro Wood (United States)	Three-piece iron plow.	Lowered production costs because a broken part could be easily and cheaply replaced.
___	Cyrus McCormick (United States)	Mechanical reaper.	Speeded the harvesting of grain, thus reducing losses from rain and wind; also made harvesting easier.
___	John Deere (United States)	Steel plow	Turned soil over deeper and faster, thus enabling farmers to grow more food.
___	Joseph Glidden (United States)	Barbed wire	Enabled farmers in areas with little stone or timber to fence in livestock.
___	Justus von Liebig (Germany)	Chemical fertilizers	Increased crop yields.

From Milton J. Belasco, *Basic World History* (New York: Cambridge Book Co., Inc., 1959), p. 210. "Out of Print"

Adapted from Bertram L. Linder, et al., *A World History* (Chicago, Ill.: Science Research Associates, 1979), p. 436.

Changes in Farming

From Muriel Platt and Nathaniel Drummond, *Our World Through the Ages* (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1971), p. 421.

Write a description of picture #1	Write a description of picture #2

Advertisement: Horse Hay Rake

An advertisement is an attempt to convince people. It contains arguments supported by facts. Examine the advertisement below and complete the exercise which follows.

2288 THE IMPLEMENT AND MACHINERY REVIEW. JUNE 1, 1879.

Shed 29. Bath and West of England Show, Exeter Meeting, June 2 to 6 inclusive. Stand 114. Stand 132, Royal Show at Kilburn, June 30 to July 7 inclusive.

JOHN G. ROLLINS & CO.,

AMERICAN MERCHANTS AND FACTORS,

Old Swan Wharf, London Bridge, London, E.C.

THE AMERICAN

"HOLLINGSWORTH"

HORSE HAY RAKE,

Fitted with **adjustable compound Spring Teeth,** twenty seven in number, each of them being quite independent of the other. The upper coil of the tooth plays upon a **Spiral Spring,** thus avoiding any strain upon the teeth when caught upon a stone or other obstruction, and readily adjust themselves to their places.

THE TEETH ARE OF SPRING STEEL, Tempered in Oil.

Every inch of steel serves as a spring. By virtue of their adjustability, the teeth can readily be adapted to every variety of work, a feature which no other Rake possesses.

The Rake is substantially made, and finished in the best manner possible.

It is very easy in draught, and so simple, that a Boy of 12 years of age can work it with ease. It is not liable to get out of order.

***Price Complete,* £10 10s.**

LONDON: Published by HARRY WHITCOTT, at 31, Catherine Street, in the City of London, and Newcastle-on-Tyne; and Printed at J. S. LEVEY'S Steam Printing Works, 2, Bell Yard, Lower Doughty Street, W.C.

English advertisement for an American horse hay rake, 1879

Reprinted with permission of the University of Reading, Institute of Agricultural History and Museum of English Rural Life.

An advertisement uses arguments to convince a buyer to purchase the product; and advertising writers use <u>fact</u> and <u>opinion</u> to convince buyers to purchase the product.

Using the chart below, see how well the arguments to buy the "Horse Hay Rake" are supported by facts.

- Find three opinions given in the advertisement for buying the "Horse Hay Rake." Write one opinion in each of the three boxes below, and support each opinion with available facts in the column beneath it.

BUY THE HORSE HAY RAKE

1.	2.	3.
In this space give a fact from the advertisement supporting this opinion.	In this space give a fact from the advertisement supporting this opinion.	In this space give a fact from the advertisement supporting this opinion.

In one paragraph, answer the following question:

"How well did this advertisement work as a means of convincing people to buy the Horse Hay Rake?"

Region A and Country B

THE CASE OF REGION A

"A" is a sparsely populated section of a large country. The few people in the area live mostly along a large navigable river and raise a little food for their own use. Their only source of outside income is from collecting and selling wild forest products such as wood and animal skins to traders. At one time in its history, "A" was a very wealthy region and supported a much larger population than it does today. This was due to a tree that grew nowhere else in the world--the rubber tree.

The invention of the automobile brought great demand for raw rubber. Therefore, Region "A" could charge almost any price it wanted for its product. The rubber boom lasted several years until someone smuggled some rubber seeds out of the area. These seeds were used to create rubber plantations in other countries. Since it cost less to produce rubber on plantations than it did to gather wild rubber, Region "A" soon could not compete with the new, cheaper plantation rubber. Many people left the region and those who remained went back to their old way of life. They farmed just enough to live, and once more gathered and traded wild forest products.

Then an American industrialist, whose company in the United States used great quantities of rubber, decided to establish a large rubber plantation and a rubber factory in Region "A." His company received permission from the government of the country to buy a tract of land and to begin operations.

THE CASE OF COUNTRY B

"B" is a country slightly larger than Great Britain in area, but with about three times the population. Unlike Britain, it is rough and mountainous. Much rainfall produces many short, swift rivers.

Every inch of land that can be farmed, is farmed, but the people still have trouble raising enough food for everyone. Most of the people are tenant farmers, working on a small plot of land. Even the landowners do not own very much land. "B" has no iron, but it does have small deposits of coal located near the coast. Some of the cities are quite large, and a number of merchants engage in trading. Some of the merchants and some of the retired military men are moderately wealthy, but no one in the country has a great deal of money.

Throughout its history, "B" has produced silk goods by hand. When foreign traders began coming to "B," one of the things they wanted to buy was silk. As a result of the contact with foreign traders, the government of "B" decided to industrialize.

From *People and Civilizations* by John M. Thompson and Kathleen Hedberg, © Copyright, 1977, by The Trustees of Indiana University. Used with permission, pp. 522-526.

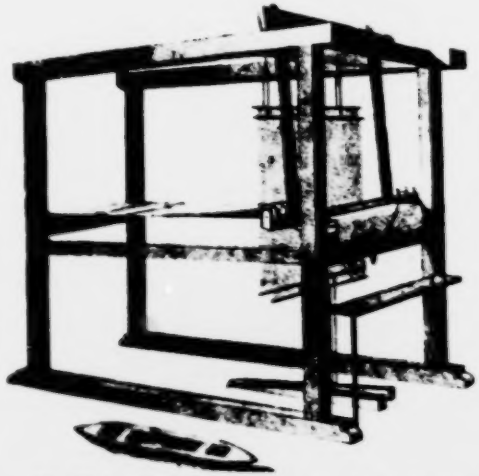
The statement "necessity is the mother of invention" is shown in the way the inventions in the textile industry were developed.

1

SIMPLE SPINNING WHEEL

As a result of increased demand for colored cottons, merchants attempted to find faster and cheaper ways to spin yarn. In 1733 John Kay invented the flying shuttle.

From Philip L. Groisser, *Mastering World History* (New York: Keystone Education Press, 1971), p. 156.



The Flying Shuttle Loom. The shuttle was "thrown" horizontally – the threads were raised by the foot pedals.
Reprinted with permission of Merrimack Valley Textile Museum.

2

The flying shuttle enabled one weaver to do the work of two. This placed more pressure on the spinners to produce more yarn. A new spinning machine was needed. In 1764 James Hargreaves invented the "spinning jenny" (named after his wife).

Hargreaves' spinning jenny. By cranking the wheel, a spinner operated all of the spindles at once. Notice the way the jenny stretched the cotton fibers, which produced fine thread.

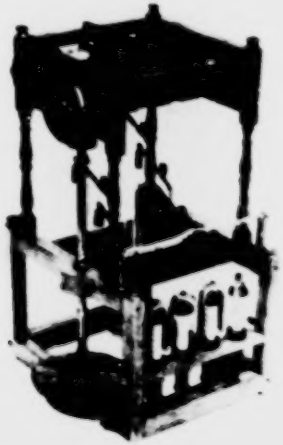
Reprinted with permission of The Bettmann Archives, Inc.

3

The spinning jenny had several spindles instead of one. Many threads could be spun at once. It needed no source of mechanical power and could be used in the cottages.

4

WATER FRAME



Arkwright's roller spinning machine solved the problem of coarse loose thread. Fibers were stretched into hard strong thread in the machine by passing them through two sets of rollers turned by water power.

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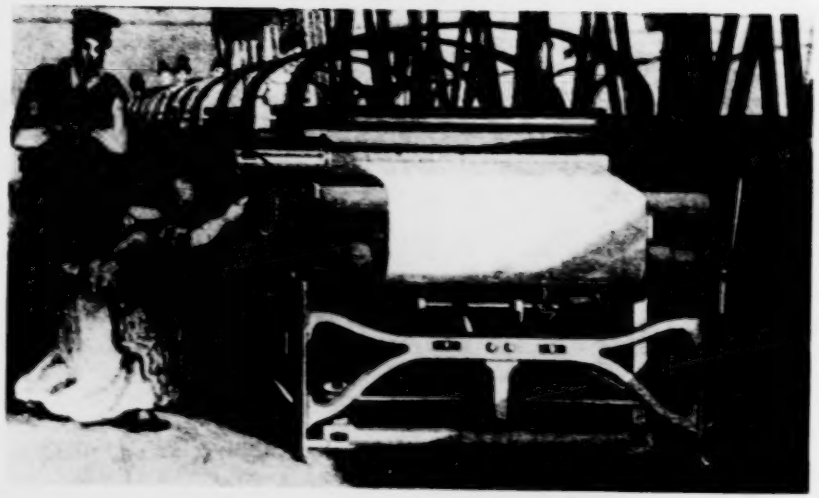
In 1769 Richard Arkwright developed the water frame. This invention led to the factory system, for new workers came to work in factories which were located near the water.

5

SPINNING MULE



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Samuel Compton invented the spinning mule combining the best features of the jenny and the frame. Using steam power, one person could control 900 spindles.

The new spinning machines placed pressure on the weavers to find faster methods of production.

Finally, in 1785, Edmund Cartwright developed the power loom.

6

POWER LOOM

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Changes in the Textile Industry

Inventor	Invention	Importance
John Kay English	Flying Shuttle (1733)	Operated by hand, it increased speed of weaving which outran supply of thread.
James Hargreaves English	Spinning jenny (1765)	Spun 8 to 10 threads at one time; could be used at home; helped fill demand for thread.
Richard Arkwright English	Water frame (1769)	A spinning machine driven by water, too large for home use; led to building of factories.
Samuel Crompton English	Spinning mule (1779)	Combined the jenny and the water frame; could spin fine, strong thread.
Edward Cartwright English	Power loom (1785)	Wove thread into cloth automatically and rapidly; operated by water power.
Eli Whitney American	Cotton gin (1793)	Separated seed from raw cotton; increased quantity of cotton available to manufacturers.
Joseph Marie Jacquard French	Silk loom with patterns (1806)	Allowed patterns to be woven into fabrics.
Elias Howe American	Sewing machine (1846)	Increased sewing speed.

From Milton Belasco and Thomas Kavendus, *Our Western Heritage* (New York: Cambridge Book Company, 1975), p. 182. "Out of Print"

DIRECTIONS:

Complete the exercise below by indicating which of the inventions above you would use to solve the problems stated in the production of cotton textiles.

Explain why you would use those specific inventions.

PROBLEM	INVENTION
1. There is a great demand for cotton in England. You are a South Carolina planter. Although you can pick enough cotton, you cannot separate the fiber from the seed quickly enough to fill the orders of the British textile mills.	I would use the _____ to solve this problem because _____ _____ _____ _____ _____

PROBLEM	INVENTION
2. You are a textile manufacturer in Manchester, England. There is a great demand throughout the country, and in fact the world, for your fabric. Until now you have hired spinners working from their homes. However, no matter how many you employ they cannot produce enough material to meet the great demand. You need a machine to produce more thread that can be installed in a factory.	I would use the _____ to solve this problem because _____ _____ _____ _____ _____ _____
3. You own a shirt factory in Glasgow, Scotland. However, your workers cannot sew enough cotton shirts to meet the worldwide demand for this product. Moreover, the employees have joined together to demand higher wages and shorter hours for their services. You need a machine that will produce more garments at a cheaper cost to you and the consumer.	I would use the _____ to solve this problem because _____ _____ _____ _____ _____ _____

So You Want to Be an Inventor

Each year thousands of people apply for patents for products they have invented. Many are motivated by the desire for wealth; others wish to help humankind. In the reading below Edward Cartwright describes how he came to invent the power loom.

> During the summer of 1784, I met some gentlemen from Manchester. Our conversation turned to Arkwright's spinning machinery. One man observed that as soon as Arkwright's patent ran out, so many mills would be built and so much cotton would be spun that there could never be enough hands found to weave it. I replied to this observation that Arkwright should try to invent a weaving machine.
>
> This led to a conversation on the subject of weaving machines. All the Manchester gentlemen agreed that it was impossible to invent a weaving machine. In defense of their opinion, they offered arguments which I certainly was unable to answer or even to understand since I was totally ignorant of the subject of weaving. At this time, I had never even seen a person weave. However, I argued against its being impossible. I remarked that recently a chess-playing robot had been exhibited in London. Said I: "Now, gentlemen, it is more difficult to construct a machine that makes all the variety of moves which are required in the game of chess than to construct a machine that weaves."
>
> A short time later, I was reminded of this conversation about weaving machines. It struck me that, according to my idea of the business of weaving, it could involve only three movements, each following one another. There would be little difficulty in producing and repeating them. Full of these ideas, I immediately hired a carpenter and a blacksmith to carry them out. As soon as the machine was finished, I got a weaver to put on the yarn. To my great delight, a piece of cloth (more or less) was the product.
>
> I had never before turned my thoughts to anything mechanical, either in theory or practice. Nor had I ever seen a loom at work, or known anything about how it was built. You can easily imagine that my first loom must have been a most crude piece of machinery. It required the strength of two powerful men to work the machine slowly. And after only a short time, they would be exhausted.
>
> In my ignorance, I believed that I had accomplished all that was required. I then secured a patent on April 4, 1785, for what I thought was a most valuable property. After this was done, I then graciously agreed to see how other people wove. You will guess my surprise when I compared their easy methods of operation with mine. However, using all of what I then saw, I made a loom which was similar to the way they are now made. But it was not until the year 1787 that I completed my invention.

From *The Impact of the Industrial Revolution* by Nicholas B. Fessenden. Copyright © 1978 by Harcourt Brace Jovanovich, Inc. Reprinted with permission of the publisher, p. 112.

APPLICATION FOR A PATENT

I, _____ _____, hereby apply
FIRST NAME *LAST NAME*

for a patent for _____
NAME OF INVENTION

to serve the purposes of:

1. _____
2. _____
3. _____
4. _____
5. _____

DRAWING OF INVENTION

_____
SIGNATURE

Mrs. McCormick's Reaper

Very often newspaper people must investigate various tips that Times. Very often newspaper people must investigate various tips that they receive. Read the story below and determine how you would go about checking on the truth of this story.

> Dr. Fred Amram of the University of Minnesota has revealed that two of the most revolutionary agricultural inventions of all time were made by women. The cotton gin, he discovered, was not invented by Eli Whitney, but by his landlady, Catherine L. Greene. Whitney only built the model and took out the patent on it. Similarly, the McCormick reaper was not the brainchild of old Cyrus, but of his wife, Nettie Fowler McCormick, who was a seamstress. One of the reasons women were not given the credit for their contributions was that they did not have the legal right to own property or control their earnings in the nineteenth century, Dr. Amram explains.
>
> From *Women's Day*, "It's All in a Woman's Day," October 1981.

Global Times

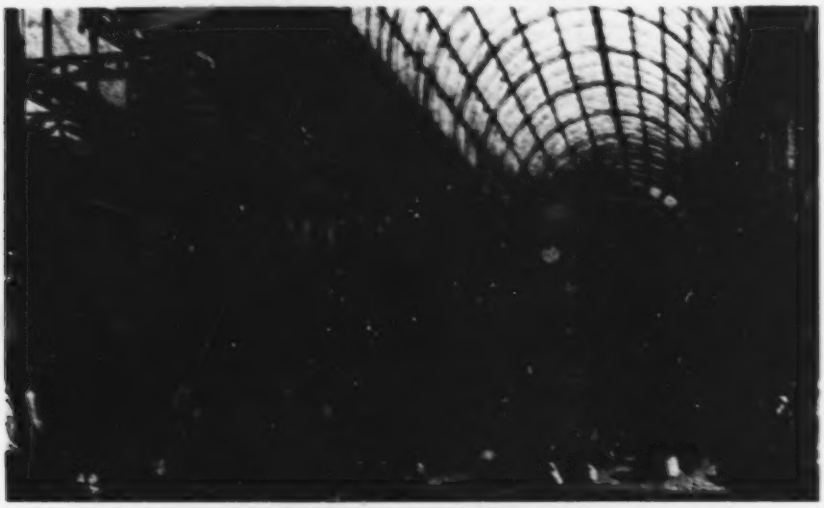
THE REAL STORY: MRS. McCORMICK'S REAPER

World's Fair

Welcome to the great industrial exhibition in London. We hope you enjoy viewing some of the inventions which will go a long way to making your life a better one in the future.

WORLD'S FAIR

In 1851, Britain held a world's fair in London to celebrate its industrial achievements. More than six million visitors viewed exhibits of scientific inventions, industrial products, and art objects in a large "Crystal Palace" built of iron and glass.
How did Britain's industrial progress affect other countries?



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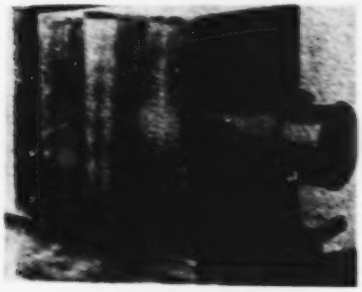

Daguerre's Camera

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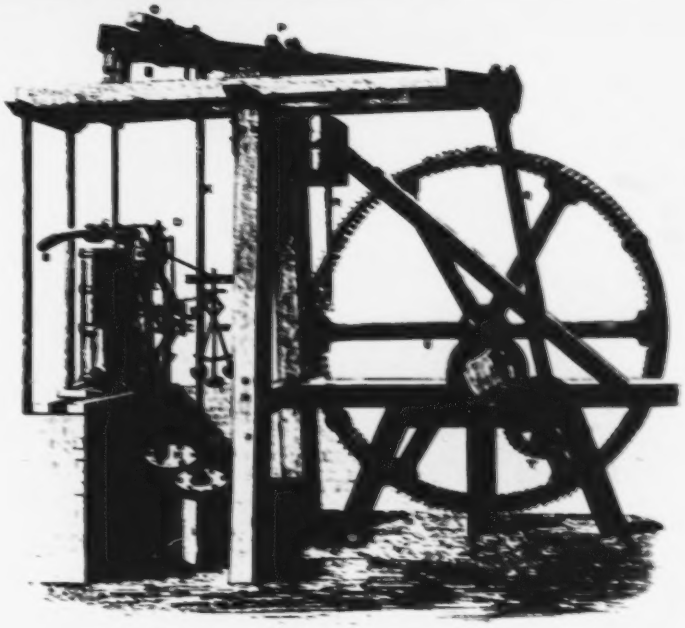

James Watt's steam engine

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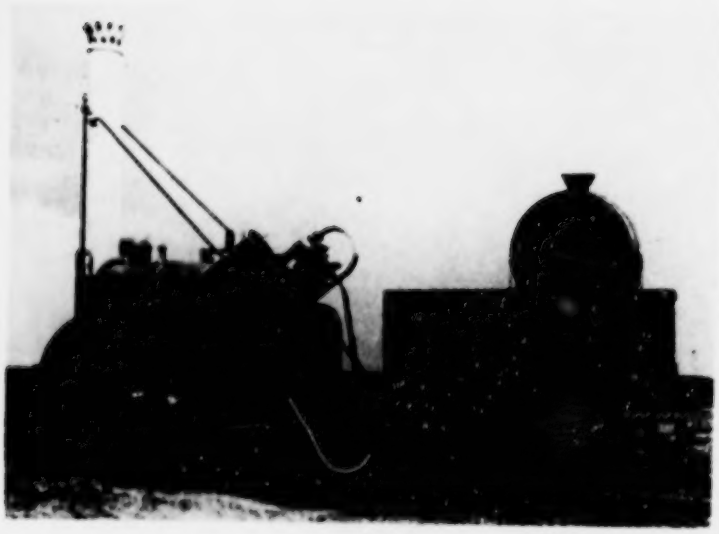

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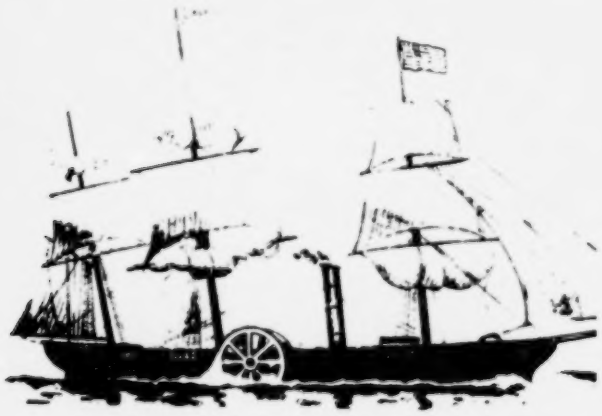

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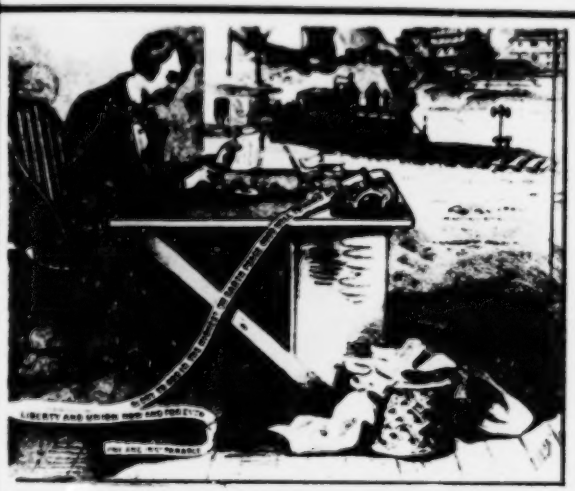

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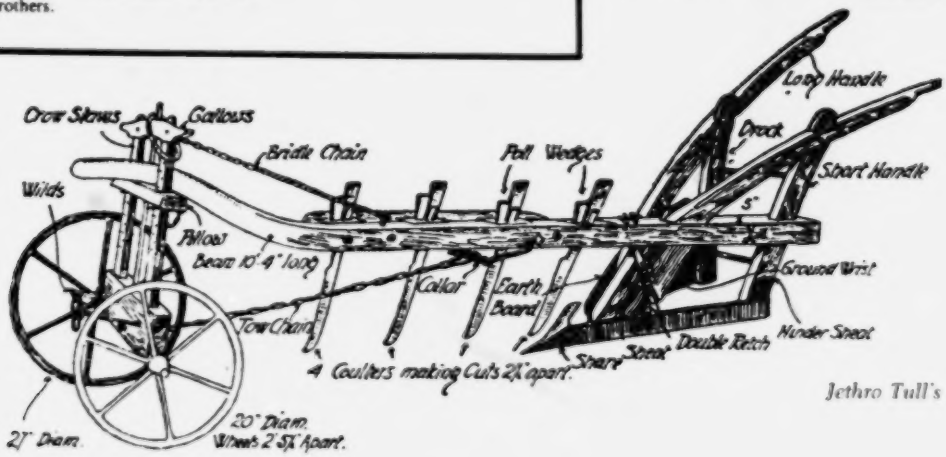


Jethro Tull's horse hoe

Courtesy of
The New York Public Library
Astor, Lenox and Tilden Foundations

Inventions: Transportation and Communication

INVENTOR	INVENTION	RESULTS
John Fitch (United States)	Steamboat (1786)	Speeded up water transportation.
John Macadam (Scotland)	Macadam road (1815)	Provided a hard surface in place of dirt, thus enabling traffic to move more quickly.
Joseph Niepce (France)	Photography (1826)	Preserved images.
Samuel F. B. Morse (United States)	Telegraph (1844)	Enabled long-distance messages to be sent rapidly.
Cyrus W. Field (United States)	Atlantic cable (1866)	Connected the United States to Europe so that messages could be sent.
Alexander Graham Bell (Scotland)	Telephone (1876)	Enabled the human voice to be sent over wires.
Guglielmo Marconi (Italy)	Wireless telegraph (1895)	Enabled the human voice to be sent over distances without wires.

From Bertram L. Linder, et al., *A World History* (Chicago, Ill.: Science Research Associates, 1979), p. 442.

Inventor's Hall of Fame

_____
First name Last name

is hereby installed in the Inventor Hall of Fame

for:

_____

_____

_____

_____

_____

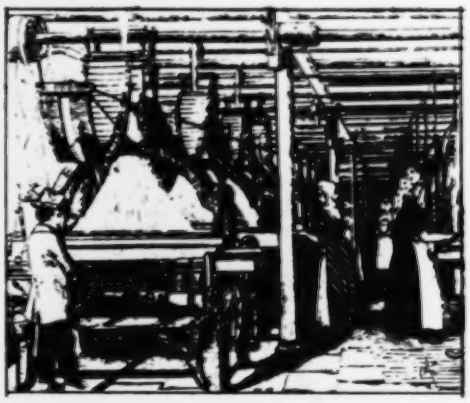
_____
Member of Installation Committee (signature)

Domestic System versus Factory System

Domestic System

Reprinted with permission of the University of Reading, Institute of Agricultural History and Museum of English Rural Life.

Factory System



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Study the pictures on this page and describe the domestic system and the factory system in the spaces below.

Domestic System	Factory System

Interview—Factory Owner

Very often the basis for a newspaper article is an interview. After you read this interview you will be expected to write a newspaper article.

REPORTER: Everyone in town is talking about the building you are putting up, Mr. Hardy. What are you planning to use it for?

HARDY: I intend to manufacture cotton cloth. The building will be my factory.

REPORTER: Factory? That's a strange word.

HARDY: It comes from the word *factor*. I used to be a factor. Do you know what a factor does, young man?

REPORTER: Yes, sir. A factor is a traveling agent who brings raw cotton to workers in their cottages, collects the cloth they make, and then sells it.

HARDY: Quite right. Well, in the factory, things are arranged differently. The raw materials and machines are kept in the factory, while the workers do their work there instead of at home.

REPORTER: If you don't mind my asking, sir, isn't it costing a great deal of money to build your factory? It's going to be the largest building in town.

HARDY: Certainly it's costing a great deal of money. Frankly, more money than I have myself. I went to London last year and spoke with some of the leading merchants there. They've made huge profits from selling English goods both here and overseas. They agreed to invest a large sum of money in my factory.

REPORTER: Aren't they taking a risk? Suppose your factory doesn't succeed?

HARDY: Of course there's a risk. If there were no risk, would I pay them interest on the money I borrowed?

REPORTER: Let's go on to something else. Why are you building your factory on the bank of our favorite river?

HARDY: That's the reason I'm building it there, because of the river. The water frames and other machines that will be used to spin and weave cloth are very large. You can't run them by hand. You have to use water power. The river provides the water power. And I don't have to pay it a salary to work for me, either!

REPORTER: Speaking about salaries, sir, are you planning to pay your workers high wages?

HARDY: High enough. Every worker will receive a good, steady wage every week. He'll be able to buy proper food and clothing, and teach his children to hope and plan for a better life. The only thing that will keep a worker from living better is his own stupidity or laziness.

REPORTER: To go back to something we were talking about earlier, sir. Do you really think there's a risk that your factory won't succeed?

HARDY: Actually, no, young man. Look at it this way. My machines will turn out a tremendous amount of cloth, about fifty times what the same number of workers used to produce when they were working at home. Everybody wants more cotton. Every ship captain and merchant I talked to in London said that he could sell whatever I produced. If not in England, then in Europe or India. No, I'm not worried at all. England will only become richer than ever by making textiles that people everywhere can afford.

From Bertram L. Linder, et al., *A World History* (Chicago, Ill.: Science Research Associates, 1979), pp. 443-444.

Global Times: The Factory Owner

Global Times

HEADLINE: (Try to express the main idea of your story in a way that will attract people's attention.)

INTRODUCTION:

BODY:

CONCLUSION:

By examining this worksheet you will learn something about factory work at the beginning of the Industrial Revolution.

Any spinner found with his window open 1s
(factories had to be kept very hot)
Any spinner with dirty hands and clothes at work 1s
Any spinner found washing himself 1s
Any spinner leaving his oil can out of its place 1s
Any spinner heard whistling 1s
Any spinner spinning with his gaslight on too long
in the morning 2s
Any spinner putting his gaslight out too soon at night 1s
Any spinner being 5 minutes late after the last bell rings 1s
Any spinner being sick who cannot find another spinner to
take his place must pay for steam per day 6s

From *The Impact of the Industrial Revolution* by Nicholas B. Fessenden. Copyright © 1978 by Harcourt Brace Jovanovich, Inc. Reprinted by permission of the publisher, p. 59.

Courtesy of
The New York Public Library
Astor, Lenox and Tilden Foundations

Reprinted with permission of the International Museum of Photography at George Eastman House.

Worksheet D-4 (continued)

Reprinted with permission of the Mansell Collection.

Subtheme D *Abuses of Industrialization* **Worksheet D-5**

The Reality of the Factory

Observers of the factory came back with the following data:

a. "Such Slavery, Such Cruelty"

The first selection is part of a newspaper article that aroused public interest in the workers' problems. The article describes the harsh working conditions of a spinning factory. Such factories were usually kept hot because the high temperature produced a better thread. Can you imagine working under the conditions described below?

Some of the lords of the loom (employers) hire thousands of miserable creatures. In the cotton-spinning trade, these creatures work fourteen hours in each day. They are kept locked up, summer and winter, in a heat of from 80 to 84 degrees. The poor creatures are doomed to work day after day for 313 days in the year. They slave fourteen hours each day in an average heat of 82 degrees. Can any man with a heart in his body keep from cursing a system that produces such slavery and such cruelty?

These poor creatures have no cool room to retreat to. They do not have a moment to wipe off the sweat, nor a breath of air. The door of the place where they work is locked, except half an hour at teatime. The workers are not allowed to send for water to drink. Even the rain water is locked up by the master's order. Otherwise, they would be happy to drink even that. If any spinner is found with his window open, he is to pay a fine of a shilling!

There is also the awful stink of gas, which adds to the murderous effects of the heat. In addition to the gas mixed with steam, there are the dust and the cotton-flyings, or flux. The unfortunate creatures have to inhale these. Men become old and are unable to work at forty years of age. Children become sickly and deformed. Thousands of them are killed by disease before they reach the age of sixteen.

Adapted from E. Royston Pike, ed., *Hard Times: Human Documents of the Industrial Revolution* (Winchester, Ma.: Allen and Unwin, Inc.), pp. 660-661.

b. "The Mother Sets Out First"

This passage describes the work done by "carriers." These were usually women and children in the coal mines, for they could be paid less than men.

The mother goes down into the pit (coal mine) with her daughters. Each has a basket, and the large coals are rolled into it. Such is the weight carried that it often takes two men to lift the burden upon their backs. The girls are loaded according to their strength. The mother sets out first, carrying

a lighted candle in her teeth, and the girls follow. In this manner they go slowly up the stairs, stopping occasionally to draw breath. Then they arrive at the hill, or pit-top, where the coals are laid down for sale. In this manner they go for eight or ten hours almost without resting. It is not uncommon to see them, when coming up from the pit, weeping most bitterly from the excessively hard work. But the instant they have laid down their burden on the hill, they are cheerful again and return down the pit singing.

Adapted form *Inquiry Into the Conditions of Women Who Carry Coals Under Ground in Scotland*, Edinburgh, 1812.

c. "Dreadful Mutilations"

The following selection is from an investigation of factories conducted by Parliament in 1842.

The accidents that occur to the manufacturing population of Birmingham are very severe and numerous. This is shown by the registers of the General Hospital. Many accidents are caused by the lack of proper attention to the fencing of machinery (putting guards aroung moving parts). This appears to be seldom thought of in the manufactories. Many accidents occur when loose portions of dress are caught by the machinery. The unfortunate sufferers are dragged into the machine. The shawls of the females, or their long hair, often cause dreadful mutilations (injuries). So do the aprons and loose sleeves of the boys and men.

Adapted from *"Report on the Sanitary Condition of the Labouring Population,"* Parliamentary Papers, Vol. 27, 1842, p. 208.

d. Elizabeth Bentley's Testimony Before the Nadler Committee:

What age are you? -- Twenty-three.

What time did you begin work at the factory? -- When I was six years old.

What were your hours of labor? -- From five in the morning till nine at night, when they were busy.

What were your usual hours of labor? -- From six in the morning till seven at night.

What time was allowed for your meals? -- Forty minutes at noon.

Had you any time to get your breakfast? -- No, we got it as we could.

And when you were rushed, you had hardly any time to eat at all? -- That's right, we had to leave the food or take it home, and when we did not take it, the overlooker took it, and gave it to his pigs.

Suppose you rested a little, or were too late, what would they do? -- Beat us with a strap.

Are they in the habit of beating those who are slow? -- Yes.

Have you ever been strapped? -- Yes. I have seen the overlooker go to the top end of the room, and sometimes he has got a chain and chained the children and strapped them all down the room.

What was the reason for that? -- He was angry.

Had the children committed any fault? -- They were too slow.

Were the children very tired at that time? -- Yes, it was in the afternoon.

Were the girls so struck as to leave marks upon their skin? -- Yes, they have had black marks many times, and their parents dare not come to him about it; they were afraid of losing their work.

Supposing you had not been in time enough in the morning at these mills? -- We would have been killed. If we were a quarter of an hour too late, they would take off half an hour; we only get a penny an hour, and they would take a halfpenny more.

From Bernard Feder, *Viewpoints in World History* (New York: Litton Educational Publishing, Inc., 1974), pp. 266-267.

No Evils Exist

One nineteenth century observer wrote:

I have visited many textile factories during a period of several months, and have entered the spinning rooms unexpectedly, often alone at at different times of the day. I never once saw a single instance of youngsters being beaten, nor indeed did I ever see children in ill humor. They seemed to be always cheerful and alert, taking pleasure in their work. The scene of industry, so far from exciting sad emotions in my mind, was always exhilarating. It was delightful to observe the way with the children tied the broken ends of thread with their tiny fingers, and to see them at leisure amuse themselves. The work of these lively elves seemed to resemble a sport. Conscious of their skill, they were delighted to show it off to any stranger. As to exhaustion by the day's work, they evinced no trace of it on emerging from the mill in the evening. These children immediately began to skip about with the same joy as boys leaving school.

I. Underline three statements which are facts in this report and circle three statements which are opinion.

II. Multiple Choice

1. The author of this passage considers himself an expert on this subject because he is (1) an owner (2) an unofficial inspector (3) an economist (4) a factory worker.
2. According to the author children in factories are (1) usually unhappy at their work (2) exhausted at the end of the day (3) proud of their efforts (4) overworked.
3. In the first paragraph, which underlined word(s) is not properly paired? (1) in ill humor - sad (2) exhilarating - joyful (3) elves - executives (4) evinced - showed.
4. The author of this passage would probably favor (1) new textile machines (2) a return to hand weaving (3) keeping children employed (4) a reduction in working hours.
5. The best title for this passage is (1) Cry of the Poor Children (2) The Industrial Revolution (3) Always Time to Read (4) Children in Textile Mills.

Three-fourths of the children who __1__ in the textile factories were engaged in joining the __2__ which broke in the cloth-making process. The youngsters are so good at doing this task that it takes about fifteen seconds to make the tie. On average a worker needs to make one __3__ a minute. Consequently, if a child works twelve __4__ a day, for nine hours he/she performs no actual labor. A __5__ told me that during those intervals he had read through several books.

III. Cloze Exercise

Select the word you would use to fill the numbered space left blank in the preceding paragraph.

For Space 1: (1) live (2) work (3) have fathers (4) play
For Space 2: (1) threads (2) machines (3) cloth (4) dyes
For Space 3: (1) tie (2) cloth (3) pattern (4) part
For Space 4: (1) moments (2) hours (3) minutes (4) periods
For Space 5: (1) supervisor (2) owner (3) worker (4) inspector

IV. Writing Exercise

1. List five reasons why children appear to be happy at their work according to the author of the factory visit account (No Evils Exist).
2. Using his perceptions, complete a paragraph which begins with the words "Children in our textile factories make excellent workers because..."

Adapted from James Hanscom, et al., *Voices of the Past: Readings in Modern History* (New York: Macmillan Publishng Co., Inc., 1976), pp. 61-62.

Life in the English Countryside

Taken from the pages of Arthur Young, English agricultural expert:

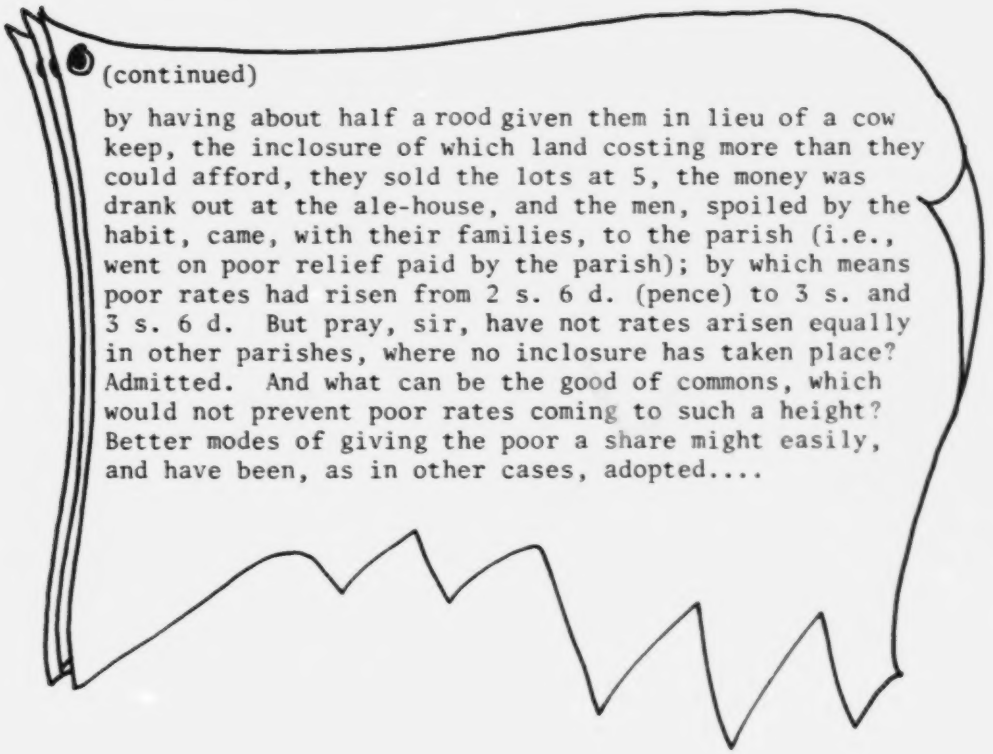
October 23, 1776

Landed at Milford haven from Ireland. The whole country inclosed, without such a thing as a common field. The food of the poor, bread and cheese, with broth made of salt meat, paid in at the cheapest season; much fish also eaten by them. Many keep cows; no goats on the mountains. The cottages many of them not a whit better than Irish cabbins, without an equal show of pigs, poultry and cows....

To Narbarth. Several cottages building in the Irish way, of mud with straw. The poor people seem well cloathed and fed. They use through all this country small heavy carts with two oxen and two or three horses, the driver sits on the front of the cart, and drives with reins.

October 24, 1776

To St. Clear. They live on bread and cheese, and milk, or water; no beer, nor meat, except on a Sunday. The culture of potatoes increases much, more planted last year than ever known before. The poor eat them; and every cabbin has a garden with some in it. Many iron furnaces, the ore dug in the country. The poor people spin a good deal of wool, and weave it into flannel for their own wear, no linen is worn by them, flannel supplying the place. Query to the physicians of the country--Is the rheumatism known here as much as in other countries where linen is worn? They make cloth also for their own wear. Weavers earn 1 s. (1 shilling) a day, and sometimes more. The poor live on barleybread, cheese, and butter; not one in ten have either cows or pigs, fare very poorly and rarely touch meat. Their little gardens they plant with cabbages, carrots, leeks, and potatoes. Rent of a cottage and garden, 10 s. to 20 s. Building a mud cabbin costs 10 (pounds)....About St. Neot's (Cambridge) a vast improvement by an inclosure, which took place 16 years ago, which makes the country much more beautiful, and has been a great benefit to the community. A gentleman of the town however complained, as I rode thither with him, that notwithstanding the productiveness of the soil was certainly greater, yet that the poor were ill-treated



(continued)

by having about half a rood given them in lieu of a cow keep, the inclosure of which land costing more than they could afford, they sold the lots at 5, the money was drank out at the ale-house, and the men, spoiled by the habit, came, with their families, to the parish (i.e., went on poor relief paid by the parish); by which means poor rates had risen from 2 s. 6 d. (pence) to 3 s. and 3 s. 6 d. But pray, sir, have not rates arisen equally in other parishes, where no inclosure has taken place? Admitted. And what can be the good of commons, which would not prevent poor rates coming to such a height? Better modes of giving the poor a share might easily, and have been, as in other cases, adopted....

Adapted from Arthur Young, *Tours in England and Wales* (London: The London School of Economics and Political Science).

Families and Factories

(A One-act Play)

Time: Late 1700s
Place: Manchester, England

CHARACTERS

MR. MATLEY	HAZEL MATLEY, age 7
MRS. MATLEY	SAMUEL DOWNE, age 15
DAVID MATLEY, age 14	MARY DOWNE, age 11
SARAH MATLEY, age 12	ROBERT DOWNE, age 16
JAMES MATLEY, age 10	

Scene One: (Setting: A small room with a rough table, a bed, and a few stools. On one side is a fireplace. There is only one window. It is boarded up, but a little light filters through the cracks. Around the table are seated members of the Matley family. A large pot is simmering on the fire. All are eating from crude pottery bowls. MR. MATLEY and JAMES dip their crusts of bread into the bowls and eat. There is a knock at the door. All stop eating and look at one another. No one moves. The knock is louder. MR. MATLEY nods towards JAMES, who opens the door. SAMUEL and MARY enter. All stare at them.)

SAMUEL. I'm--I'm Samuel Downe, your cousin from the country. This is Mary.
MR. MATLEY (rising and going towards Samuel). Yes, I remember you now. You're Henry's second boy. But what are you doing here? Are you alone?
SAMUEL. Yes, we're alone. Mary and I have been trying to find you for almost a week. We heard there was work in Manchester.
MRS. MATLEY. Sit down, sit down. I'll get you food. Hazel! James!

(HAZEL and JAMES jump up and offer the newcomers their stools. SAMUEL and MARY sit down. MR. MATLEY pours the last of the mixture from the pot into JAMES' and HAZEL's bowls, setting them in front of SAMUEL and MARY. She takes the chunk of bread in the middle of the table and divides it between them. JAMES goes to the pot, and with the small piece of bread which he still has begins scraping and eating from it.)

MRS. MATLEY (with a glance to her husband). Eat first, and then tell us about the family and what brings you here. I know the food's not fit for Sunday dinner, but it's all we have. We already ate what meat there was, but there are still a few potatoes soaked in broth. And the bread is almost entirely wheat bread--only a little bit of barley mixed with it. (She shakes her head.) I never thought we'd see the day when we'd be forced to eat potatoes, like the Irish, and glad enough to have them!

(SAMUEL and MARY eat rapidly. The other children and MR. MATLEY stare at them while MRS. MATLEY continues talking.)

MRS. MATLEY. Things have changed since two years ago when your father was here. Everyone was making good wages then. I never thought then that I'd be forced to send my baby to the factory! (She looks down at HAZEL.)
HAZEL. I'm not a baby.
MR. MATLEY (to SAMUEL). You want to work in Manchester? What about the farm?

SAMUEL. The crops failed a year ago, but somehow we got by. This year they failed again. And on top of that, they passed a law saying everybody in the parish must give up his pasture and woodland. The master is going to farm it for himself. Enclosure movement, they call it.

MR. MATLEY. But can't you hire out?

SAMUEL. We tried. Ordinarily there's plenty of work during harvest time, but not this year. My younger brothers have already been apprenticed. Father didn't apprentice me because my older brother, Robert, has always been sickly. Father thought that I'd be the one to run the farm. Two years ago I worked for the master. But this year he's not hiring anybody--not even to hoe turnips! We heard there were good jobs here in Manchester and everyone could work. We thought perhaps--that Mary and I could find work.

MARY. We have nothing to eat at home.

MR. MATLEY. There's little enough here.

MRS. MATLEY. It was different two years ago. They needed spinners then, and everyone got good wages. Now wages have dropped, and prices have risen. All of us work. Even Hazel.

DAVID (to SAMUEL). Have you ever worked in a factory?

(SAMUEL shakes his head)

DAVID. Maybe they won't hire you. You're awfully old to be learning factory work.

JAMES. Our factory manager said he wasn't going to take on any new help that was older than ten. He said the old ones are clumsy and don't know how to work.

SAMUEL. I've always worked! Ever since I can remember! I can hoe a field of turnips faster than anybody. And there's not much harder work than that!

MR. MATLEY. What will you do if you can't find work? Hundreds of people are swarming into Manchester. They come from all the area round about. They all have the same thought. They think there's work in the factories of Manchester.

MRS. MATLEY. And as if it isn't enough to have more and more English country folk coming in, there's always the Irish. They're willing to work for the most miserly wage! It's no wonder we can't make anything for an honest day's work.

SAMUEL. We have to find work here! We've tried everything else. We can't go back to the land. I had hoped that perhaps you would help us.

MR. MATLEY. I'll do what I can.

SARAH. Perhaps Mary could get a job where I work. The factory manager is waiting for a new batch of orphans from the parish. But they haven't come yet.

MRS. MATLEY (to her husband). May they stay with us until they find a place?

MR. MATLEY. They may stay with us for the present. Samuel, you will sleep on the floor, but there will be room for May to sleep on the bed with Sarah and Hazel. Perhaps you can find work which will give you lodging.

MRS. MATLEY. Sarah, show Mary where she may sleep. (The two girls exit).

DAVID. Samuel, if you sleep next to the fireplace, you will be warm. That part of the floor is almost never wet, even when it rains.

JAMES. And sometimes on a sunny day, we unfasten a board on the window and get a little sunlight. The landlord boarded up that window when they raised the window tax.

(Banging and shouts are heard offstage. Samuel looks in that direction in surprise.)

DAVID. Never mind about that. That's just the people in the next room. We always hear them when they make a racket.
(Shouts and thumps continue. SAMUEL remains looking at the wall and then at the fireplace as the curtain falls.

Scene Two: Three days later.
(Setting: Same as Scene One, except that no light is coming from the cracks in the boards. There is a faint glow from the fireplace, but the rest of the room is dark. DAVID and JAMES are sleeping on the bed in the corner. SAMUEL is lying on the floor by the fireplace. SAMUEL is covered by a thin woolen blanket, dressed in the same clothes he was wearing before. The door to the next room opens slowly and MARY comes in silently. She is wearing a cotton nightgown that is too big for her. She tiptoes carefully over to where SAMUEL is lying.

MARY (In a whisper). Samuel! Samuel! (SAMUEL sits up)
SAMUEL (Softly). Mary! Why aren't you asleep?
MARY. I can't sleep! (She sits beside him) I don't like it here. I want to go home!
SAMUEL. But Mary, you're lucky! You've got a job!
MARY. I hate that factory! The others laugh at me because I'm clumsy. I have to watch the machine all the time. Threads are always breaking somewhere. I can't tie them fast enough to keep up. The manager beat me because he says I'm loafing. I get so tired! I can't keep working all the time without a rest.
SAMUEL. But it's a job, Mary! They give you something to eat every day! And you'll get money besides. What do you think about me? I must have gone to every factory in Manchester! It's always the same story. --A boy from the country? Never worked in a factory before? Go back to the farm! You're too old.
MARY. I want to go back to the farm!
SAMUEL. We can't go back! You know there's nothing for us there! Besides, you'll get used to the work. Remember how hard it was every spring getting used to working out in the field? And how soon you'd be working from sun-up to sun-down and never minding the heat or getting tired or the ache in your back?
MARY. That was different! If I got awfully tired, I could sit down in the field and rest a little. I can't rest a minute in the factory. The machine keeps going all the time.
SAMUEL. You get lunch in the factory. And even breakfast.
MARY. But we go to work before it's even light! And the city is so noisy, and crowded, and smelly, and dirty! At least at home we were out in the fresh air!
SAMUEL. Yes, in the fresh air, and the wind and rain. Don't you remember how cold it would be when the wind would come from the north? And we'd have to keep working, because it had to be done. Sometimes, when I was cutting grain, my hands would get so cold I couldn't even feel the scythe and would drop some grain and not even know it. And remember how we worked to get the crops planted and hoed, only to have them freeze? No matter what happens here, you'll get your money every week.
MARY. But every day it's the same thing. Watch the machines. See when the thread breaks. Tie the threads. Over and over again. I hate it! I want to go home!

SAMUEL. We can't go home, at least not now. Maybe in the spring, if I can get a job, and we both save some money. Maybe in the spring we can go home. Now go to bed or you won't be able to work at all tomorrow. You'll get used to the factory. It won't be so hard.

(MARY goes into the other room. SAMUEL sits staring into the fireplace)

Scene Three: Three months later.
(Setting: Same as Scene One. MARY and the MATLEY family, except for DAVID, are seated around the table. DAVID and SAMUEL are sitting on the floor near the fireplace. All are eating. There is a knock at the door. All stop eating and look at one another. MR. MATLEY nods towards JAMES, who opens the door. ROBERT DOWNE enters, SAMUEL and MARY jump up and go to him.

MARY. Robert!
SAMUEL. Robert! What are you doing here?
ROBERT. I'm glad I found you at last! I was almost ready to go back to Birmingham without you! (To MR. MATLEY) I'm Robert Downe, the brother of Samuel and Mary.
MR. MATLEY. Yes, I see. Sit down, and tell us what brings you here.
ROBERT (Sitting on one of the stools). It's a long story. When father went north to find work in the coal mines, Mary and Samuel came to Manchester. I stayed with mother and the younger children to see if we could get something from the farm. A few weeks ago father sent word for mother and the children to come to Birmingham. And he sent word for me to try to find Mary and Samuel in Manchester.
SAMUEL. Did father get a job in the coal mines?
ROBERT. Even better! He got a job at a factory just outside the city.
DAVID. He got a job in a factory? He's never worked in a factory before.
SAMUEL. I've been trying for two months and haven't been able to get a steady job.
MR. MATLEY. Things must be much better in Birmingham.
ROBERT. I don't know about things in Birmingham but I know the way things are in this factory. The man who brought me news of father told me about it. They have houses for the workers. They're large and better furnished than our cottage on the farm. The owners want to encourage families to live there. So they hire everyone in the family who wants to work, and give them jobs in one part of the factory or another. They pay good wages, and a person is sure of steady work. Only they don't hire children under age 10. Those children have to go to school and learn to read instead.
HAZEL. I'd go to school?
JAMES. What good does reading do you?
SAMUEL. And I can get a job there? With a good salary and steady wages?
ROBERT. You can get a job--a better job than you ever dreamed of having. If you're willing to work hard, they'll always pay you, even when times are bad and there's not too much work to do. They don't fire anybody who stays on the job, and works hard, and doesn't get drunk. The man said that's the thing they like about father. He's a lot steadier than most people from the country. That's why they want him to bring his family there.
DAVID. But what happens if you all get work at the same factory, and the whole factory shuts down? That happens sometimes.

MRS. MATLEY. Yes, I remember the first factory where we worked. It shut down for six months because they produced too much cloth and they couldn't sell it right away. If David and Sarah hadn't been able to get work somewhere else, I don't know what we would have done.

ROBERT. The man said they still pay people, even when there isn't much work. (MR. MATLEY shakes his head) I wouldn't have believed it either, but the man swore it was true. And he was wearing nice clothes and had money with him. He said he started out as an ordinary worker, and now he is manager of one section.

JAMES. I'd like to work in a place like that.

MR. MATLEY. That's just a story. Factory owners don't care about workers. They think we're just tools to keep the machines running. All they care about is how much cloth is produced at the end of the day. They don't care how tired a person gets. If someone is sick and misses a few days, it's too bad. They're out of a job.

ROBERT. But this factory is different. Look, father even sent money to help us move to Birmingham. (He takes off his jacket, lifts up the inner lining, and takes out a small bag with some coins in it) There were more, but I used some when I was looking for you.

MARY. How soon can we go there?

ROBERT. Tomorrow, if you are ready.

SARAH. Oh, Mary, I don't want you to go.

MARY. Maybe there will be a job for you there, and then you can come and stay with us.

SAMUEL. Yes, we'll find out how things are. If they are really as good as Robert says, we'll send for Sarah and David too. Maybe that way we can repay you for your kindness to us these past few months.

MARY. Maybe you'll all want to move to Birmingham.

SAMUEL. Yes, who knows what this will bring? Maybe it will be a new beginning for us all.

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Subtheme D *Abuses of Industrialization* **Worksheet D-9**

A New Look at the Industrial Revolution

Much has been written about the effects of the Industrial Revolution on the workers. Some have said that technological change brought little but misery and poverty. Mrs. Gilboy's careful studies indicate that while the well-being of the laborer in the woollen area of the Southwest had indeed fallen, the life of the Northern area worker had steadily improved, and the laborer of London more than held his own. It is true that the rise of prices after 1793 hurt many poor people. By 1815, industrial wages in England caught up with retail prices, and in the twenties the gain was pronounced. In 1831, the cost of living was 11 percent higher than in 1790, but over this span of time urban wages had increased by more than 43 percent.

The new products that came about as a result of the Industrial Revolution were not luxuries but necessities. By the 1870s the cotton and woollens, and food and drink which now became available, were purchased by the masses. Some of the products of the factories and ironworks were sent abroad. The return cargoes included sugar, grain, coffee, and tea for the people at large. The diet of the worker almost certainly improved: there was a substitution of "flower of wheat" for rye and oatmeal; and meat, which had been a special treat, became, with potatoes, the typical dish on the worker's table. The coal raised from the pits helped to warm many a home and cook many a meal.

A leading politician has recently spoken of the "horrors of the Industrial Revolution," and there can be little doubt that the mines and machines brought new risks of injury and death. On the other hand, work in so-called heavy trades was made easier. The number of crippled and deformed people that followed the introduction of power declined. Also, there was reduction of women and young children working, a rise in family earnings, a greater regularity of pay, and a gain in welfare that came as industrial work was taken out of the home. The central problem of 1760-1830 was how to feed and clothe a greatly increased number of children. Ireland was faced with the same problem. Due to potato famine, she lost in the 1840s most of her population by emigration, starvation, and disease. If England had remained a nation of farmers and craftsmen, the same thing might have happened there. She was saved by those who invented new instruments of production and new methods of running industry.

Adapted from Thomas S. Ashton, *A New Look at the Industrial Revolution* (Oxford, England: The Clarendon Press).

An outline of the article you have just read appears below. Certain parts have been left out. Complete the outline by filling in the blank spaces with appropriate parts of the reading.

I. The Industrial Revolution helped to improve the lives of workers in a number of ways.
   A. Wages for workers in Northern areas and London improved.
   B. From 1790-1830 prices increased 11 percent but wages increased more than 43 percent.
   C. _____
   D. _____

II. While the machine age created certain dangers for workers, the work of of many more was made easier.

A. _____

B. _____

C. _____

III. Because of different conditions, the problem of increased numbers of children was resolved differently in Ireland and England.

A. _____

B. _____

What Should the Workers Do?

It is the year 1800 and you are a worker in a factory. Today, you will attend a meeting of your fellow workers. The purpose of the meeting is to decide on a course of action to improve your working conditions.

Before the meeting convenes, write in column A on the chart below all the possible actions you might take to eliminate the evils wrought by the factory system. (The actions that you chart should include all that you can think of, not only those which you think will be effective.) For each action you list, complete column B by indicating what you believe will result from each action taken. (Once the meeting begins, add to the chart any suggestions you had not previously included.) For each suggested action, explain why you chose to participate or not participate. Write your reasons in column D.

	A Suggested Workers' Actions	B Expected Results	C Would you participate?		D Reasons
			Yes	No	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Solidarity Forever

by Ralph Chaplin

When the union's inspiration through the workers' blood shall run,
There can be no power greater anywhere beneath the sun.
Yet what force on earth is weaker than the feeble strength of one?
But the union makes us strong.

Solidarity forever!
Solidarity forever!
Solidarity forever!
For the union makes us strong.

Is there aught we hold in common with the greedy parasite
Who would lash us into serfdom and crush us with his might?
Is there anything left for us, but to organize and fight?
For the union makes us strong.

CHORUS

It is we who plowed the prairies, built the cities where they trade,
Dug the mines and built the workshops, endless miles of railroad laid.
Now we stand, outcast and starving, mid the wonders we have made;
But the union makes us strong.

CHORUS

All the world that's owned by idle drones is ours and ours alone.
We have laid the wide foundations, built it skyward stone by stone.
It is ours, not to slave in, but to master and to own,
While the union makes strong.

CHORUS

They have taken untold millions that they never toiled to earn.
But without our brain and muscle not a single wheel can turn.
We can break their haughty power, gain our freedom while we learn
That the union makes us strong.

CHORUS

In our hands is placed a power greater than their hoarded gold;
Greater than the might of armies, magnified a thousandfold.
We can bring to birth the new world from the ashes of the old,
For the union makes us strong.

Solidarity forever!
Solidarity forever!
Solidarity forever!
For the union makes us strong.

(Sung to the Battle Hymn of the Republic.)

From John Greenway, *American Folksongs of Protest* (Philadelphia, Penn.: University of Pennsylvania Press, 1970).

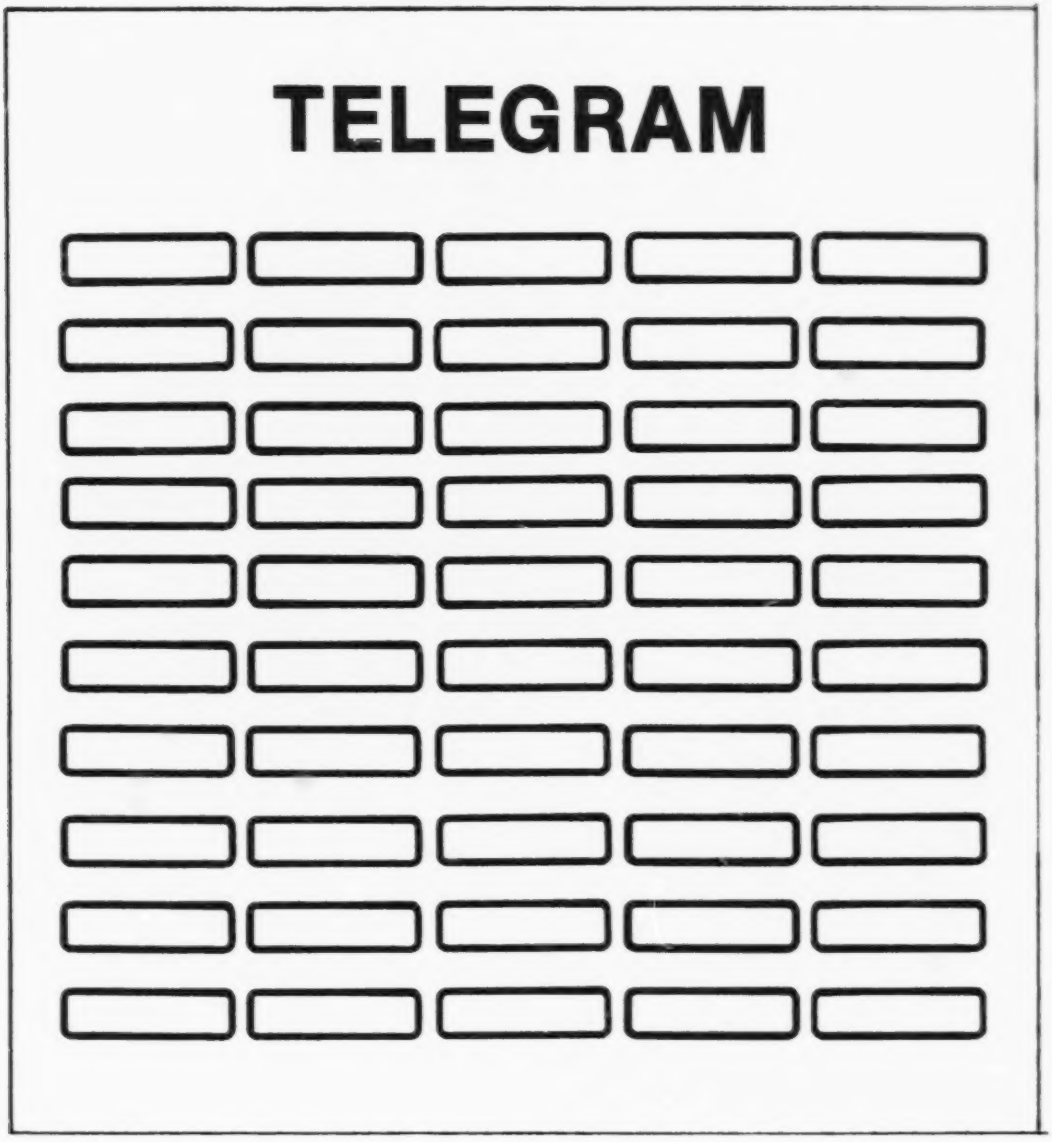
Organizing a Union

The story below recounts the efforts of Joseph Arch to organize farm workers in Britain in the 1890's:

> About six weeks after the formation of the Union, we held a great demonstration and tea meeting in the public hall.... People came flocking and streaming in from miles around. Crowds of poor laborers with their wives and children marched into the town, headed by their village fife and drum bands.... Men and women came dressed in the best they had; that little band of stiff and bent and battered men, stunted and toil-worn, with their thin and haggard wives.... They marched away singing this rhyme:
>
> "The farm laborers of South Warwickshire,
> Have not had a raise for many a year,
> Although bread has often been dear;
> But now they've found a Union."
>
> I was the chairman of the Organizing Committee, which sat in the room downstairs.... We drew up the following rules:
>
> 1. The name of the Society shall be the "Warwickshire Agricultural Laborer's Union."
> 2. Its object is to improve the lives of the farm workers by increasing their wages; lessening their working hours; improving their living conditions and helping deserving laborers to find other jobs.
> 3. In all questions about workers' wages, an attempt shall be made to solve such problems by discussions between the Union and the employers.
> 4. The Union shall take charge in all disputes between employers and employed; to make arrangements for supporting members when out of work.
>
> At the evening meeting, the people had been pouring in like a flood, until the hall was as full as it could be; and then they overflowed into the street, and thousands more joined the overflow..,. I faced such a crowd of my fellow creatures as I had never before set eyes on.... I told them what a struggle I had had, how I had fought my way up, bit by bit. I wanted them to know that I had been through what they were suffering now.... I wanted them to know that their one chance for a better life lay in the Union; that if they wanted to have a living wage instead of a starvation one, they must combine and unite to get it. Such a wage was owed them, for when a man gave his master honest work, he had a right to honest money in return.... I wanted the men to act rightly by themselves and their wives and little children.

Adapted from James Hanscom, et al., *Voices of the Past: Readings in Modern History* (New York: Macmillan Company, 1967), pp. 113-115.

Telegram



A

TRADE UNION MEMBERSHIP

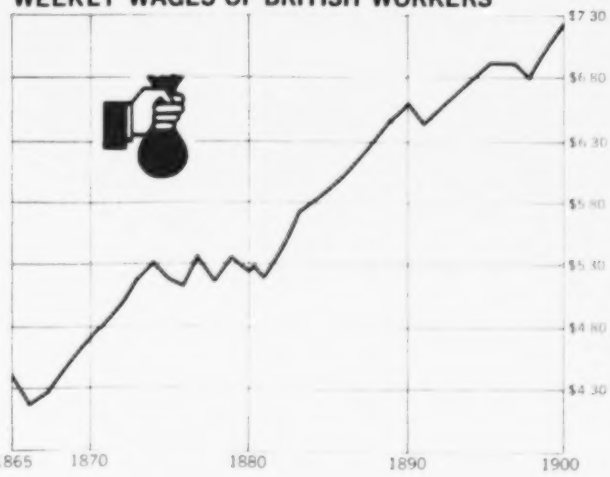
(1)

(2)

B

WEEKLY WAGES OF BRITISH WORKERS

(3)



(4)

- What do each of these scales represent?
  - (1) _____
  - (2) _____
  - (3) _____
  - (4) _____

- What is the title of
  - Graph A _____
  - Graph B _____

- In which year was membership highest? _____
- During which ten year period did wages increase the most? _____
- During which ten year period did union membership increase the most? _____
- Write sentences describing the information you gained from reading these graphs. _____

_____

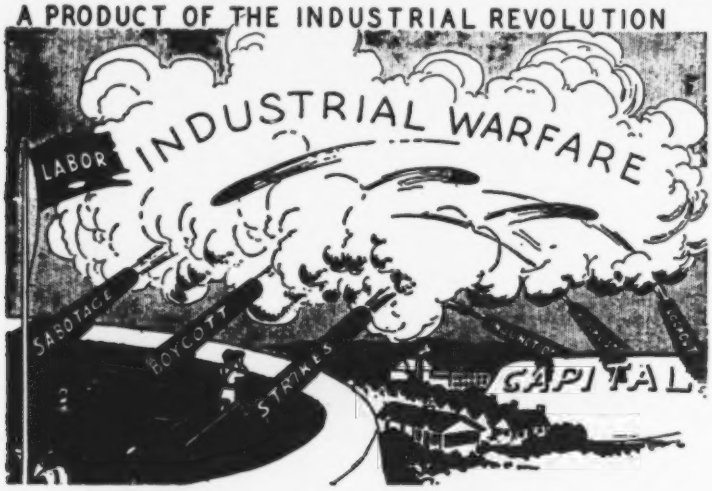
_____

_____

Adapted from Sidney Schwartz and John R. O'Connor, *The Growth of Industrialization* (New York: Globe Book Co., Inc., 1976), pp. 43-44.

Union versus Employers

A



From Philip Dorf, *World History* (New York: Oxford-Sadlier, 1966), p. 216.

B

THE WEAPONS OF UNIONS AND EMPLOYERS

Union Weapons	Employer Weapons
1. **strikes** (organized stopping of work).	1. **lockout** (closing plant to force employees to accept terms).
2. **picketing** (walking up and down before factory on strike to urge public not to do business with employer).	2. **injunction** (court order prohibiting workers from striking or picketing).
3. **boycott** (refusal to buy products of company whose workers are on strike).	3. **yellow-dog contract** (agreement by an employee not to join a union).
4. **collective bargaining** (an attempt to settle dispute by discussions between labor and management).	4. **blacklist** (names of active union workers, used to deny them work).
5. **closed shop** (only union members may be employed).	5. **individual bargaining** (agreements made with employees separately).
6. **check-off** (regular deductions from worker's salary for union dues).	6. **open shop** (union and non-union labor may be employed).
7. **sabotage** (malicious waste or destruction of employer's property).	7. **welfare capitalism** (providing certain benefits for workers to keep them from joining union).
8. **union label** (the public is urged to buy goods made only by union labor and so labeled).	8. **right-to-work laws** (a worker may work whether he is or is not a union member).
9. **favorable labor legislation** (laws meeting labor's demands).	9. **laws limiting union activities** (for example: no union meetings on company time or property).
10. **union shop** (non-union labor can work with union labor providing they join union within 30 days).	10. **company unions** (organization of employees of a plant, usually controlled by the employer).
11. **lobbying** (personal efforts to influence law-makers).	
12. **direct political action** (backing a candidate or controlling labor's vote).	
13. **feather-bedding** (requiring employer to pay for unnecessary work or workers; or slowing up work).	

From Milton J. Belasco, *Basics World History* (New York: Cambridge Book Company, Inc., 1969), p. 223. "Out of Print"

Subtheme D *Abuses of Industrialization* **Worksheet D-16**

Global Times: Workers' Riots

Global Times

LEEDS, *April 12.* We regret to have to record one of the worst cases that has occurred. It has spread alarm through this manufacturing district. On Thursday night at about twelve o'clock, the large cloth factory of Joseph Foster was surrounded by a large body of armed men. They proceeded to break into that part of the mill used for the dressing of cloth. There they completely destroyed all the shears and water frames. They then smashed all the windows. They also broke into those parts of the factory against which they do not have any ground of complaint, the scribbling mill and weaving shops. They damaged a quantity of thread ready for the loom. They destroyed not merely the glass of the window but the frames, which were of cast iron. The windows of the dyehouse, the countinghouse, and even the dwelling houses next to the workshop shared the same fate.

At the beginning of these dreadful outrages, a detachment from the main body attacked the dwelling house where Foster's sons lived. They shattered the door in pieces, and broke both the window and the frame. The workers entered the bedroom of the young men. They demanded the keys of the building, under pain of instant death. The house occupied by the bookkeeper was also broken into. His family was treated with the most brutal violence. To complete the full measure of their guilt, they afterward set fire to the building.

These lawless men, having accomplished their aim, gathered in a neighboring field. There the leader called over their numbers, to which each individual answered. Having made sure that the whole number was there, he said, "The work is done. All is well; go home." This order was obeyed.

There appears also to have been some serious work at Carlisle. We are told that many were wounded by the troops, which had been called out. Afterwards a woman was killed and several men were wounded. Most of the houses in the marketplace showed some marks of firing.

Adapted from Louis L. Snyder and Richard B. Morris, *Treasury of Great Reporting*. Copyright © 1948, by Simon and Schuster, Inc. Reprinted by permission of the publisher.

From Ronald Posner, *The First Industrial Society* (New York: Macmillan Publishing Co., 1975), p. 50.

Global Times

RIOTS DEFENDED IN LUDDITE SONG

Luddite Song

The guilty may fear, but no punishment's aimed
At the honest man's life or his land,
The awful machines are the ones that we blame
And the wages now too low for man.
These engines of mischief were sentenced to die
When all of the workers agreed
That Ludd, who can all opposition defy
The grand Executioner be.

And when in the work of destruction employed
To succeed there's no method he bans;
By fire and by water he gets them destroyed
For the elements aid in his plans.
Whether guarded by soldiers along the highway
or closely locked up in the room,
He breaks them up both by night and by day,
And nothing can soften their doom.

People may criticize Ludd's disrespect for the Laws
If they ne'er for a moment reflect,
What awful oppression alone was the cause
Which produced these unhappy effects.
If the rich no longer oppress the poor
Then shall Ludd stop his attack,
His complaints if quickly heard will be no more,
and we shall restore the peace we lack.

Let the wise and the great lend their aid and their worth
Nor e'er their assistance withdraw
Till the old higher wage and the proper-made cloth
Are established by Custom and Law.
The workers shall rejoice when this contest is won
And with dignity and pride it can be said,
That cutting and processing cloth no more shall
Deprive honest workers of bread.

From *The Impact of the Industrial Revolution* by Nicholas B. Fessenden. Copyright © 1978 by Harcourt Brace Jovanovich, Inc. Reprinted by permission of the publisher, p. 125.

EDITORIAL

Handbill for the Arrest of the Luddites

As a response to the Luddites' action, this handbill for their arrest was issued:

County of Leicester

The Magistrates for this County

CAUTION

All Persons Against The Crime of

Frame Breaking

Every person forcing entry into a house in the night, IN ORDER TO BREAK A FRAME, and every person IN ANY MANNER aiding or assisting others in doing this deed, is guilty of BURGLARY. This crime is punished by DEATH.

Persons who use their employers' frames and who in any way cooperate in their destruction are PARTNERS IN SERIOUS CRIME. HIDING THE NAMES OF FRAME BREAKERS, in order to screen them from justice, is punished by FINE AND IMPRISONMENT.

Persons COLLECTING MONEY BY FORCE OR THREATS for the support of frame breakers, ARE CRIMINALS. They will be punished with DEATH.

Persons USING THREATENING LANGUAGE concerning the personal safety or property of others, risk a prison term. In order to be released from a prison term, they must find individuals who will GUARANTEE their future good behavior.

And the magistrates call upon all good and loyal subjects of the King to be ALERT. They must give the police of their parishes the EARLIEST NOTICE of all such criminal ACTS or THREATS. In this way, the offenders may be arrested and dealt with, according to law.

By order of the Magistrates,

CHARLES LACEY, their Clerk.

Loughborough, December 10, 1811.

Adapted from a handbill for the arrest of the Luddites, 1819 cited in Douglas Leversidge, *The Luddites* (New York: Franklin Watts, Inc., 1972).

The People's Charter of 1838

The Chartists collected about 1,238,000 signatures for their petition to Parliament. They made many points, including the following summarized ones:

The People's Charter of 1838

1. We protest that the government is controlled by the rich for the benefit of the rich.

2. We protest that the rights of the poor, the majority of the population, are ignored.

3. We demand that the system of government should be changed so that the laws would serve all the people and not just the priveleged few.

4. We demand that laws be passed which allow all men who are of lawful age, sane, and without criminal record, to vote for Members of Parliament. In this way, laws shall be made by those who represent the interest of the many, not that of the few.

5. We demand that all elections be held by secret ballot.

6. We demand that Parliament be elected for no more than a one-year term.

7. We demand that a law be passed ending the property qualifications for office of Member of Parliament.

8. We demand that all Members of Parliament receive a fair salary while making the laws for the nation.

A Chartist Petition Today

A Petition by the Workers to the United States Government

We the working people of the United States who make up a majority in this country are tired of a government which does not meet our needs. We therefore demand the following:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

What Should the Government Do?

You are Members of the British Parliament in the 19th century. A special session has been called to discuss the demands of the workers. Fill out the chart below. Use the box in the middle for rating workers' demands as follows: A = Most justified; B = Justified; C = Partly justified; D = Not justified.

Workers' Demands	Rating	Suggested Government Action

Factory Legislation

The Health and Morals Act of 1802 applied only to the new textile mills.

The Health and Morals Act of 1802

1. The minimum (lowest) age of employment shall be nine years.
2. The working day for children under fourteen shall be limited to twelve hours.
3. Children shall not be employed to work at night.
4. Factories shall be whitewashed twice each year.
5. Employed children are to be supplied with two suits of clothes per year.

Adapted from Sidney Schwartz and John R. O'Connor, *The Growth of Industrialization* (New York: Globe Book Co., Inc., 1976), pp. 36-37.

The following selection is a portion of the English Factory Act of 1833.

English Factory Act of 1833

No person under eighteen years of age shall be allowed to work...between the hours of half-past eight o'clock in the evening and half-past five o'clock in the morning...in or about any cotton, woolen, worsted, hemp, flax, tow, linen, or silk mill or factory....

No person under the age of eighteen years shall be employed in any such mill or factory...more than twelve hours in any one day, nor more than sixty-nine hours in any one week....There shall be allowed in the course of every day not less than one-and-a-half hours for meals....In mills for the manufacture of silk, children under the age of thirteen years shall be allowed to work ten hours in any one day....

All children shall be entitled to the following holidays, viz.: on Christmas Day and Good Friday, the entire day; and not fewer than eight half-days besides in every year....

His Majesty shall appoint four persons to be inspectors of factories and places where the labor of children and young persons under eighteen years of age is employed...and such inspectors or any of them are hereby empowered to enter any factory or mill, and any school attached or belonging thereto, at all times and seasons, by day or night, when such mills or factories are at work; and having so entered, to examine the children and any other persons employed there, and to inquire about their condition, employment, and education....

It shall not be lawful for any person to employ in any factory, except in silk mills, any child under the age of nine.

It shall not be lawful to employ, keep, or allow to remain in any factory or mill for a longer time than forty-eight hours in any one week, nor for a longer time than nine hours in any one day...any child who shall not have completed his or her eleventh year of age.

Adapted from A. Young, *Tours in England and Wales* (London: The London School of Economics and Political Science).

The Coal Mine Regulation Act of 1842

It shall not be lawful for any owner of a mine to employ any female person within the mine, other than those who were employed before the passing of this act.

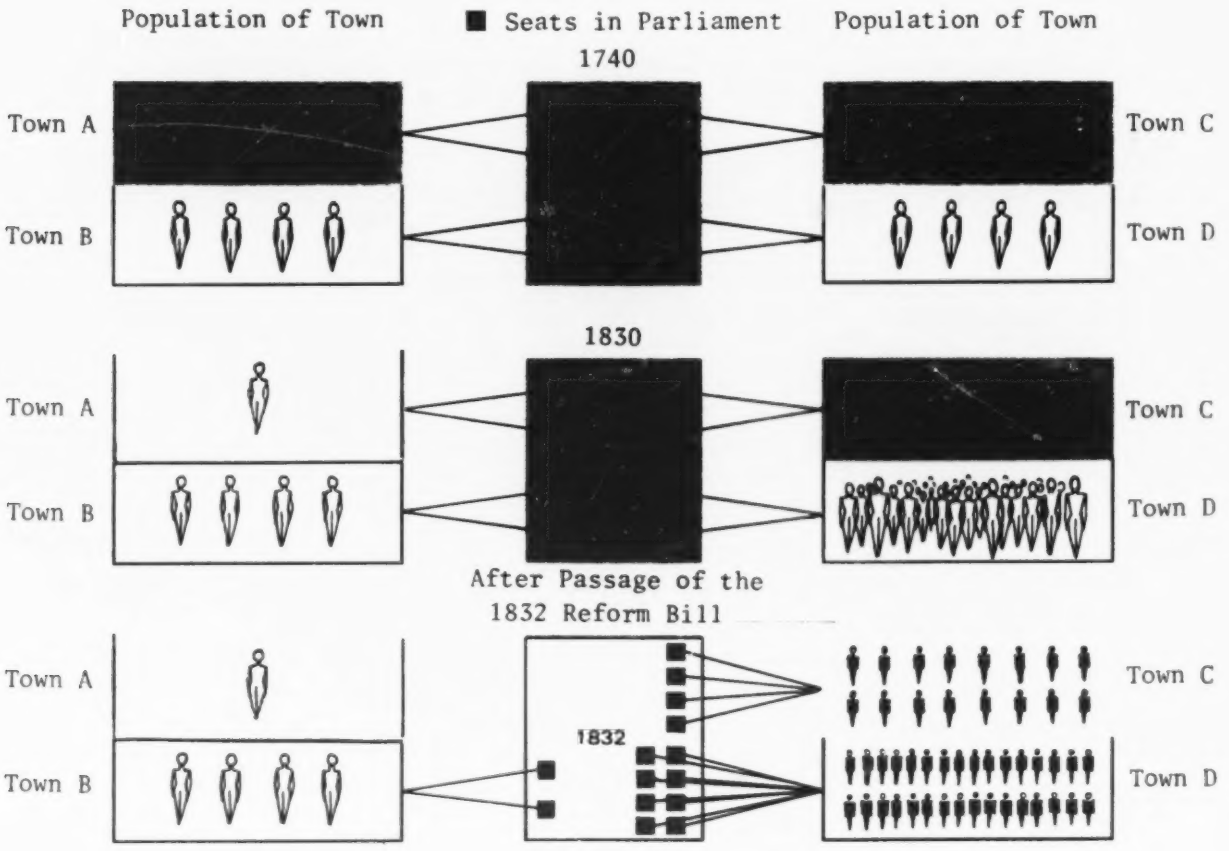
It shall not be lawful for any owner of any mine to employ any male person under the age of ten years.

Adapted from Sidney Schwartz and John R. O'Connor, *The Growth of Industrialization* (New York: Globe Book Co., Inc., 1976), p. 37.

Subtheme D *Abuses of Industrialization* **Worksheet D-22**

Impact of Industrialism on Democracy

This chart is intended to show the effect of the Reform Bill of 1832 on representation in Parliament.



1. What is the title of this chart? _____

2. What does this symbol ■ represent? _____

3. What does this symbol represent? _____

4. This is a chart of comparison:
   a. What is being compared? _____
   b. For which three years? _____

From Gerald Leinwand, *The Pageant of World History* (Boston, Mass.: Allyn and Beacon, Inc., 1977), p. 430.

5. By 1830, which town's population had grown smaller? _____

   By 1830, which town's population had remained the same? _____

   By 1830, which two towns' populations had grown larger? _____

6. Had representation in Parliament changed by 1830 as a result of the change in population?

   Is this fair? (Explain in one paragraph.)

   _____

   _____

   _____

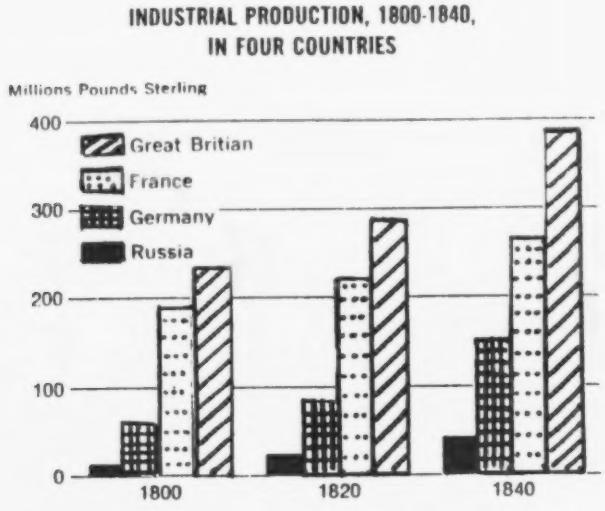
7. How did the Reform Bill of 1832 change representation in Parliament?

   _____

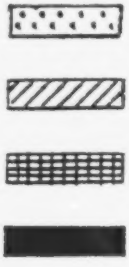
   _____

8. Based on this chart, how would you describe the effect of industrialism on democracy?

Industrial Production: 1800-1840



Indicate in the spaces provided what is represented by each of the following symbols:



_____

_____

_____

_____

1. In pounds sterling, what was the value of industrial production in France in 1820?_____ in Russia in 1840? _____ in Great Britain in 1800? _____
2. By how many pounds sterling did industrial production increase in Germany between 1800 and 1840? _____
3. Which country's production increased most between 1800 and 1840?_____
4. Which country's production increased the least between 1800 and 1840? _____
5. Describe the changes from 1800 - 1840 in industrial production in the four countries listed below:

   Great Britain _____

   France _____

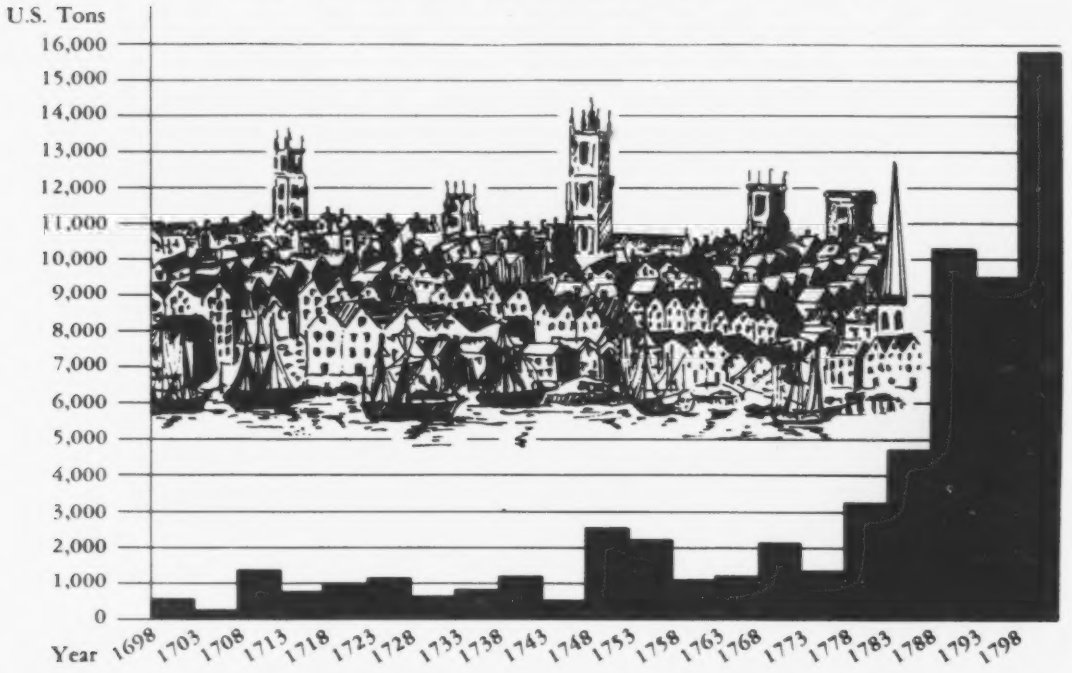
   Germany _____

   Russia _____

From *Our Western Heritage* by Daniel Roselle and Anne P. Young, © Copyright, 1981, 1976, 1972, by Ginn and Company (Xerox Corporation). Used with permission, p. 224.

Raw Cotton Imports to Great Britain

RAW COTTON IMPORTS TO GREAT BRITAIN, 1698–1798



1. What is the title of this graph? _____
2. What is an import? _____
3. What do the figures next to the chart (vertical coordinates) represent?

   _____
4. What do the figures below the chart (horizontal coordinates) represent?

   _____
5. What was the amount of raw cotton imports to Great Britain from:

   1698 - 1703 _____

   1753 - 1758 _____

   1788 - 1793 _____
6. What general statement can you make about the change in the amount of imports to Great Britain from 1698 - 1798 ? _____

   _____
7. Where might the cotton have come from? _____

From *People and Civilization* by John M. Thompson and Kathleen Hedberg, © Copyright, 1977, by The Trustees of Indiana University. Used with permission, p. 531.

Subtheme E *Effects of Industrialization*

Worksheet E-3

Wage and Price Index

WAGE AND PRICE INDEX 1790–1850

(A)	(B)	(C)
Year	*Index of Wages (Factory Workers)*	*Index of Prices*
1790	100	100
1795	114	128
1800	132	164
1805	147	157
1810	169	176
1815	158	158
1820	153	128
1824	155	110
1831	141	103
1840	139	114
1845	136	93
1850	141	84

USING INDEXES

A wage index is a simple way of showing how wages have changed over time—whether they have gone up or down. This is how it works:

In making an index, the number 100 is assigned to a "base year"—in this case, 1790. Here, the number 100 represents the average wage paid to English factory workers in 1790. The index number 114 (for 1795) then means that wages, on the average, were 14 percent higher than they were in 1790. An index number of 200 would mean that wages had doubled. An index number of less than 100 would mean that wages had dropped below the level of 1790.

Using index numbers makes it easy to compare different things, such as wages and prices. As long as the base year is the same, you can tell at a glance whether or not wages have kept up with prices. If the same index numbers are used to make a graph, it is even easier to make a comparison.

From *The Impact of the Industrial Revolution* by Nicholas B. Fessenden. Copyright © 1978 by Harcourt Brace Jovanovich, Inc. Reprinted by permission of the publisher, p. 80.

Exercise A

- What is the title of this chart? _____
- How is column: (A) labeled? _____
  (B) labeled? _____
  (C) labeled? _____
- Based on what you read here what is an index? _____
- Look at the index of wages. How did it change from 1790-1850? _____
  _____
- Look at the index of prices. How has it changed from 1790-1850? _____
  _____

Exercise B

For each question that follows circle the letter next to the correct answer.

1. In 1790, workers
   a) earned $100 a week.
   b) had to pay $100 to meet living expenses.
   c) earned enough to provide for their needs.
   d) were better off economically than they would be in 1800.

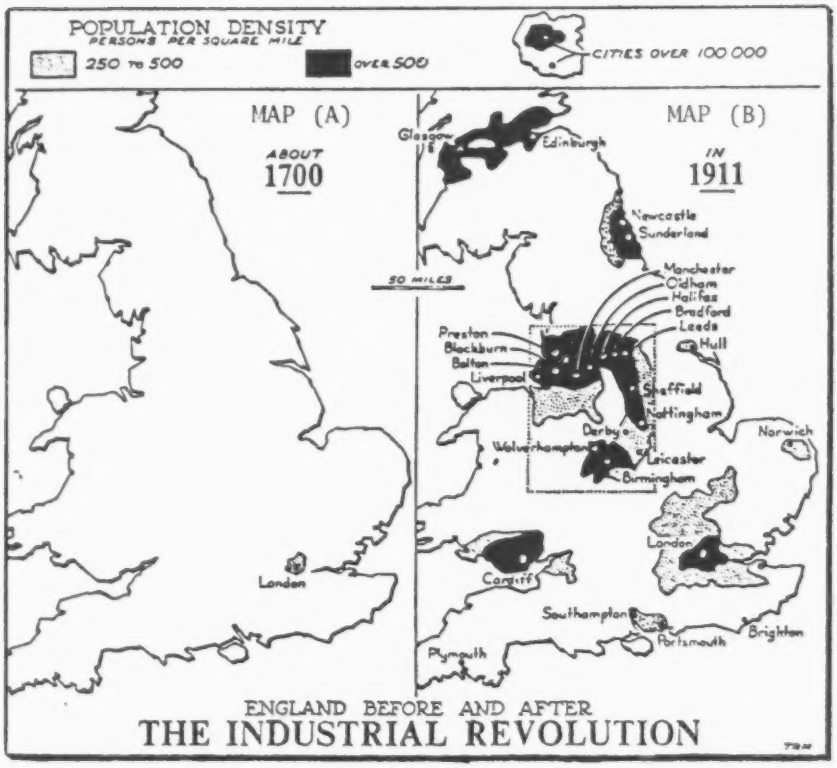
2. In which of these years would a worker be best off?
   a) 1790
   b) 1800
   c) 1810
   d) 1820

3. Which statement is true about English factory workers between the years 1790 and 1850?
   a) They became increasingly poor.
   b) They became increasingly unhappy.
   c) Goods were cheaper and wages lower in 1850 than in 1790.
   d) Their standard of living was about 50% higher in 1850 than in 1790.

4. Which statement is false?
   a) Workers were as well off in 1815 as in 1790.
   b) They earned the same salary in 1815 as in 1790.
   c) Workers' purchasing power began to improve after 1815.
   d) Workers would rather live in 1845 than in 1810 even though their salaries were lower.

5. Historians would be most interested in knowing
   a) what $100 represents in 1790.
   b) why standards of living declined between 1790 and 1810.
   c) why the cost of living rose between 1820 and 1850.
   d) why salaries declined between 1831 and 1850.

Urban Growth



1. What is the title of these maps? _____

2. What do these symbols represent:

   _____?

   _____?

   _____?

3. What does map (A) show? _____

   What does map (B) show? _____

4. Describe in your own words the information you get from comparing these maps. _____

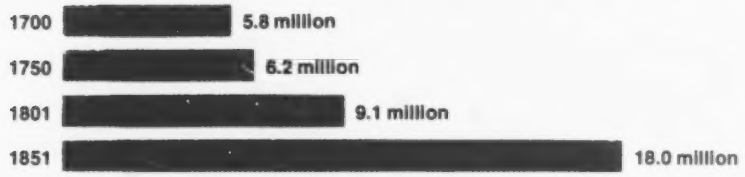
   _____

From *A History of the Modern World,* Third Edition, by Robert R. Palmer and Joel Colton. Copyright © 1965 by Alfred A. Knopf, Inc. Reprinted by permission of the publisher, p. 424.

Population Growth and Death Rates

A

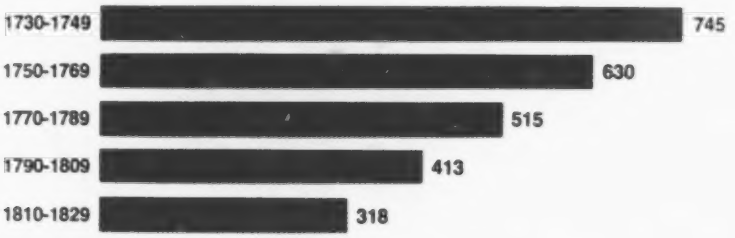
POPULATION OF ENGLAND AND WALES 1700–1851



The first official census was taken in 1801. Population statistics for years earlier than 1801 are estimates.

B

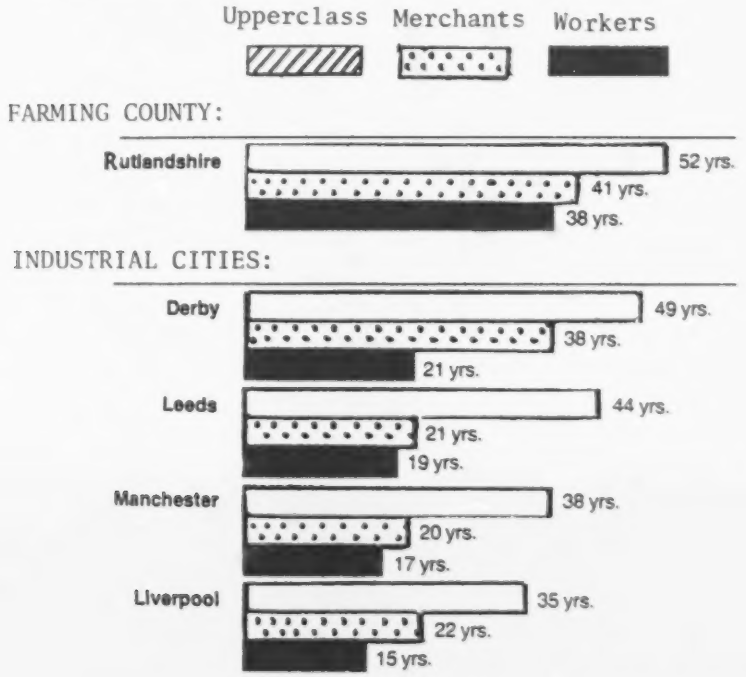
INFANT DEATH RATES IN LONDON 1730–1829



Deaths per year per 1,000 children under the age of five

C

AVERAGE AGE AT DEATH IN ENGLAND ABOUT 1840



From *The Impact of the Industrial Revolution* by Nicholas B. Fessenden. Copyright © 1978 by Harcourt Brace Jovanovich, Inc. Reprinted by permission of the publisher, pp. 72-75.

A Debate on Industrialism: Was it Worth it?

A World Destroyed

☐ Before the Industrial Revolution, most people were born, lived, worked, and died in the same place, among people they knew and saw every day. There was no separation between working and living. Ties to the community were strong and were rarely broken. People lived a way of life which began before them and lasted after them.

People helped each other in getting food and shelter. No one grew fat or starved alone. The scale of everything was smaller, tools, houses, land, villages. There were no large and impersonal apartment houses, factories, or hospitals. Scale and activity were affected by nature. For example, time was measured by the daily sun and the seasons. Laws were carried out by local people.

Most important of all, people's economic activity was a part of their way of life. Yet it was less important than their whole way of life. That is, there were no purely economic or scientific "laws." Customs or religion regulated life. Play, art, ceremony, and spiritual matters were not separated from the other parts of life. Activity of all kinds was based on folk and religious culture. This culture had developed without any overall plan. It had grown up in response to human needs. This world was destroyed in the making of our modern world.

Adapted from *The Greening of America* by Charles A. Reich, Copyright © 1970 by Random House, Inc. Reprinted by permission of Random House, Inc.

Some Benefits of Industrialization

☐ I believe in materialism. I believe in all the benefits of a healthy materialism. Benefits like good cooking, dry houses, dry feet, sewers, drain pipes, hot water, electric lights. Benefits like automobiles, good roads, bright streets, long vacations away from familiar scenes, new ideas, fast horses, swift conversation, theaters, operas, orchestras. I believe in them all for everybody. The people who die without knowing these things – the people who die deprived – may be pure as saints and wise as poets. But if they are, it will be in spite of their deprivation – not because of it.

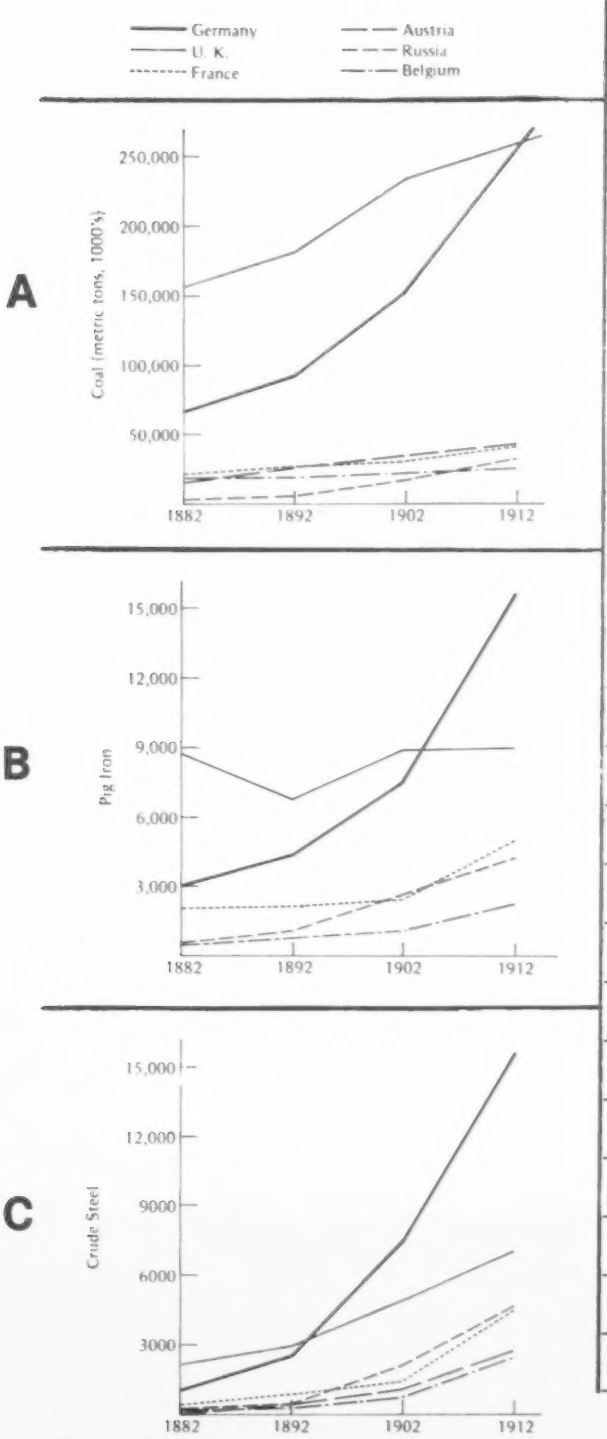
Adapted from *Economics: An Introductory Analysis* by Paul Samuelson, Copyright © 1976 by McGraw-Hill, Inc. Reprinted by permission of McGraw-Hill Book Company.

Special Edition: Debate on Industrialism

Global Times

FEATURE STORIES	EDITORIALS
(HEADLINE):	(HEADLINE):
(HEADLINE):	(HEADLINE):

Industrial Production: Line Graphs



From *The Western Experience* by Mortimer Chambers, et al. Copyright © 1979 by Alfred A. Knopf, Inc. Reprinted by permission of the publisher, p. 850.

A line graph is another way of expressing what could be presented in another form. For each of the line graphs on the left write a paragraph summarizing the information contained in the graph. For each graph include a statement about each of the two leading countries in production. The other countries may be grouped in one statement.

Written Explanation

(A)

(B)

(C)

77

Subtheme E *Effects of Industrialization* **Worksheet E-9**

The Village of Nayon

An example of the way Europe's Industrial Revolution affected the lives of Third World people is contained in the reading below.

The people of Nayon, in Ecuador, South America, are Indians, as are their neighbors. Until about thirty years ago, the village provided for its own needs through farming and had little to do with the rest of the world. The people followed a mixture of native and sixteenth century Spanish customs. Lands were not used when too badly eroded. A few traders exchanged goods between Quito, Ecuador's capital, and the villages in the tropical areas. Houses were dirt-floored, with thatched roofs and pole walls, sometimes mud plastered. Guinea pigs ran freely about each house and were the main meat source. Most of the population spoke no Spanish. Men wore long hair and ponchos and concerned themselves chiefly with farming. While the local priest acted as governor, handling dealings with those outside the village, tribal leaders had greater control over those who lived in Nayon.

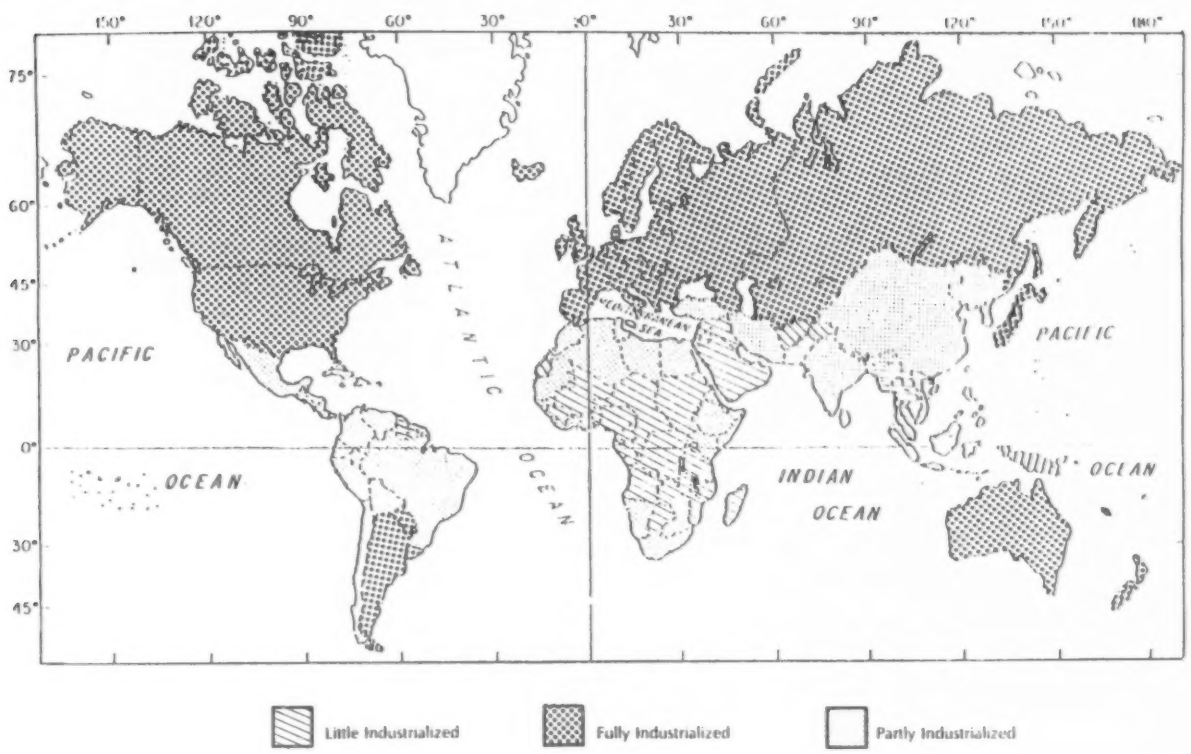
The completion of the Guayaquil-Quito railway in 1908 brought the first real contacts with the modern industrial world. As of the date of my last visit, only two men wore long hair, and only two old-style houses remained. If guinea pigs are kept, they are in pens; their flesh is now a luxury food, and beef is the most common meat. Houses are of adobe or brick, usually with tile roofs. Most of the population speaks Spanish. There is no resident priest, but an appointed government official who, with a policeman, represents authority. A six-teacher school provides education. Clothing is becoming city-like; for men it often includes overalls for work, and a tailored suit, white shirt, necktie, and felt hat for trips to Quito. Attendance at church is low and many festivals have been abandoned. Volleyball or soccer is played weekly in the plaza by young men who sometimes wear shorts, blazers, and berets. There are few shops, for most purchases are made in Quito, and from there comes most of the food, so that there is a far more varied diet than twenty-five years ago. There are piped water and some health services; in addition, most families go to doctors in Quito in emergencies. The road has been paved, and bus service is more regular. There is one reputed millionaire (in sucres, the national currency, and the equivalent of about $150,000 U.S.), and several are classed as wealthy.

From R. L. Beals, "The Village in an Industrial World," *The Scientific Monthly*, LXXVII (August, 1953), pp. 65-73. Reprinted by permission of the American Association for the Advancement of Science.

After reading the preceding article indicate which of the statements below describe the village of Nayon before and after the impact of Europe industrialism.

Description of Nayon	Before industrialism	After industrialism	Better After	Worse After	Explanation
1. A few traders exchanged goods between Ouito and the villages.					
2. Most of the population speaks no Spanish.					
3. Church attendance is low.					
4. Men wear long hair and ponchos.					
5. Most of the food comes from Quito.					

Industrialization in the World



1. What is the title of this map? _____

2. What do these symbols represent?

   _____

   _____

   _____

3. Name two countries which are:

   partly industrialized _____

   fully industrialized _____

   little industrialized _____

4. What conclusions can you draw? _____

   _____

From Philip L. Groisser, *Map Workshop in World History* (New York: Oxford Book Company, 1965), p. 77.

POLL

Indicate by placing a check (✓) in the appropriate box whether you agree or disagree with these statements. Under the box labeled "Reasons," explain your opinion in two sentences.

	YES	NO	REASONS
1. The government should not pass any laws affecting workers, employers, or any other part of the economy.			
2. The government should protect businessmen from possible foreign competition by raising tariffs.			
3. The government should set minimum standards for the quality of products, set safety conditions for workers, and punish all violators of those standards.			
4. The government should break up business monopolies and all companies which become too large.			
5. The government should set maximum prices that can be charged for goods and set limits for salary increases.			
6. The government should produce all goods, distribute them as it sees fit, and set their prices. Quality and quantity of goods should be determined by government needs and desires.			

Adam Smith and Laissez-Faire

August 24, 1776

Dear William,

I'm glad to renew my correspondence with you after so many months. As you know, I couldn't write because I've been working on my book, The Wealth of Nations. Now that it's finished I have some time on my hands and can once again take up my pen.

In your last letter, you described your views on the role of government in promoting the economic well-being of our nation. I find myself in strong disagreement. Permit me to restate my position:

Our economic system works best when government keeps its hands off. The French call this "laissez-faire," by the way. Businessmen should be free to run their businesses in a way that brings them the greatest profit. This leads to a healthy economy because what is good for business is good for the nation. More goods are produced and more jobs are created. Our economic system controls itself. It doesn't need interference by outside forces--there is an "invisible hand" at work guiding what happens.

My dear William, as I've said before, competition is the most important ingredient in a well-functioning economy. It forces each man to produce the highest quality goods at the lowest possible price. Under such a system, each person must produce a superior product if he is to survive. Competition also benefits the nation's consumers by keeping prices down. Under this system, persons end up producing what the people want at the prices they are willing to pay.

As I said in my new book, "Every man, as long as he does not violate the laws of justice, (should be) perfectly free to pursue his own interest in his own way, and to bring both his industry and capital into competition with those of any other man, or order of men."

I hope these sentiments will persuade you to give up your notion that government should interfere in the workings of the economy. (Of course, I will send you a copy of Wealth of Nations as soon as it is available from the printer.) I look forward to your next letter, and pray that you and your lovely family will remain in the best of health. Until then, I remain

Your devoted friend and obedient servant,

Adam Smith

Edinburgh, Scotland

Adapted from Charles Hirschfeld, ed., *Classics of Western Thought: The Modern World* (New York: Harcourt Brace Jovanovich, Inc., 1968), p. 207.

Dear Professor Smith

September 20, 1776

Dear Professor Smith,

I was glad to receive your letter and look forward to future correspondence. I read your comments with eagerness. Insofar as persuading me to change my opinions, I.....

(give your opinion of Smith's views)

_____

_____

_____.

(now give reasons to support your opinion about Smith's views)

_____

_____

_____

_____

_____

_____

_____

_____.

(write a conclusion)

_____

_____

_____.

Your student,

William

Marxism

Assume you are a worker in the nineteenth century. Today you have gone to the local town square to hear Karl Marx propose his solutions to problems faced by laborers. The crowd quiets; Marx begins to speak:

> A spirit is haunting Europe--the spirit of communism.
>
> The history of...society is the history of class struggles. Throughout history, there has always been conflict between the haves and the have-nots, between those who hold economic power and those whose labor is exploited. In ancient times, this conflict was between freeman and slave, between aristocrat and commoner. In the Middle Ages, it was between the lord and the serf, between the guild master and the journeyman. Here in the industrial age, there is constant class warfare between the proletariat (workers) and the bourgeoisie (employers)....
>
> At one time, capitalism was beneficial to society. It enabled people to produce goods on a large scale. The machines and technical skills introduced by capitalism created unlimited opportunities for people to improve themselves. But now capitalism has outlived its usefulness.... The workers...are forced to work long hours under miserable working conditions. They receive little in return for their labor. Although the workers produce the goods, the profits go to the capitalists. Capitalism has brought great wealth to the bourgeoisie and grinding poverty to the worker.
>
> What is the solution? Communist theory is summed up in a single sentence: Abolish private property (property owned by individuals, and not the state). Bring all the means of production into the hands of the state; that is, the workers organized as the ruling class. When this happens, the class struggle will be over. In place of the capitalist society with its opposing classes, we will have a classless society in which everyone will be equal.
>
> The immediate aim of the communists is...to organize the proletariat. Aroused and united by the communists...the workers will rise up and overthrow their capitalist oppressors.... They will take over the means of production and seize political power.
>
> Let the ruling classes tremble at a communist revolution. The proletarians have nothing to lose but their chains. They have a world to win.
>
> Workingmen of all countries, unite!

Adapted from Bertram L. Linder, et al., *A World History* (Chicago, Ill.: Science Research Associates, 1979), p. 459.

DIRECTIONS:

The following are notes taken by a student who read an account of The Communist Manifesto. The notes were not written in any logical order, however. How would you organize this material in order to answer the following homework questions?

(1) What past and present conditions did Marx find in his study of history?

(2) What did Marx predict for the future, and based upon this prediction what advice did he have for people?

Be sure to include all nine items in answer to question 1 or 2. In what order would you place the statements within each question? Once you have outlined the question by doing the above, write out the answers to both questions.

(1) Today -- Capitalist versus Worker

(2) Workers of the world unite.

(3) Private property abolished.

(4) Example -- Lords versus Serfs

(5) You have nothing to lose but your chains.

(6) Leads to classless society and end of class struggle.

(7) Revolution must happen.

(8) All history is a class struggle.

(9) Poor getting poorer but greater in number.

Karl Marx—Meet the Press

Below appears what might have been part of the transcript if there had been a Meet the Press interview with Karl Marx. However, in some cases the questions have been left out; in other cases the answers have been left out. It is up to you to fill in the blank spaces with what you think are the appropriate questions or answers.

Q. Mr. Marx, what is the aim of your communist movement?

A. _____

_____.

Q. _____?

A. At one time, capitalism benefited society. It involved the large scale production of goods. Unlimited opportunities for people to improve themselves were created.

Q. Can you explain why you say that the history of society is one of class struggles?

A. _____

_____.

Q. _____?

A. When this happens, the class struggles will be over. In the place of capitalism with its opposing classes, we will have a classless society in which everyone will be equal.

Q. What would you say to the capitalists who are listening to this program?

A. _____

_____.

Q. _____?

A. _____

_____.

Q. _____?

A. _____

_____.

Marx versus Smith

For each statement below, indicate on the adjoining chart whether Marx and Smith would agree or disagree. If you can't tell from the previous readings (Worksheets F-2 and F-4) what their position might be, write "Not Sure" "agree" or "disagree" to indicate which of the statements you are in agreement with.

	Agree or Disagree?		
	Marx	Smith	You
1. All society, including the workers, benefits when business people are allowed to compete without government control.			
2. History is best understood as a struggle for power between different classes in society.			
3. Under capitalism, business people will produce goods of the highest quality and at the lowest prices.			
4. In a capitalist society, the workers are doomed to grow poorer until they rise up and seize power.			
5. In a communist society, everyone will be equal and the evils of capitalism will disappear.			
6. The government should control the means of production.			

Adapted from Sidney Schwartz and John R. O'Connor, *The Growth of Industrialization* (New York: Globe Book Co., Inc., 1976), p. 36.

Subtheme F *Industrialization Affected Ideologies* **Worksheet F-7**

Pyramid to Overturn

Many people agreed with Marx's views including socialists in Belgium who distributed this poster.

a)

b)

c)

d)

e)

Courtesy of
The New York Public Library
Astor, Lenox and Tilden Foundations

1. What is the title of this cartoon? _____

2. Who are the different groups of people represented in this cartoon?

a. _____ d. _____

b. _____ e. _____

c. _____

3. How can you explain supporters of Marx representing the structure of society in this way?

4. How can you explain the title of the cartoon, "A Pyramid to Overturn"?

Rerum Novarum

Pope Leo XIII (1890-1903) expressed the opinion of the Catholic Church on the emerging new industrial society. His encyclical, Rerum Novarum, presented the Catholic Church's position on the new economic, social, and political issues of the time:

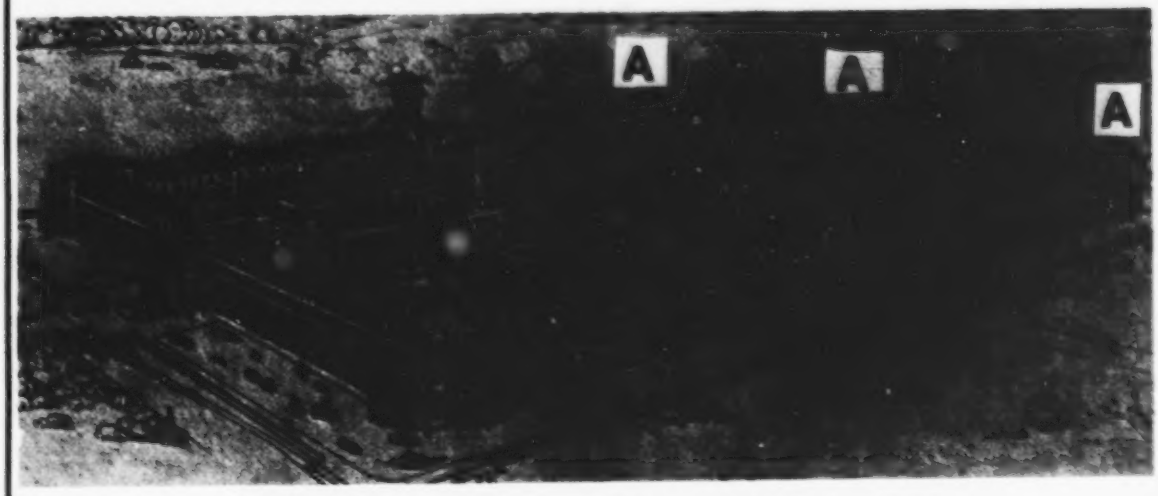
> New developments in industry, new techniques striking out on new paths, (have) changed relations of employer and employee, providing wealth for a very small number and poverty to the masses.
>
> We see clearly that the poor must be cared for, since the great majority of them live undeservedly in miserable and wretched conditions.
>
> However, the fundamental principle of socialism, which would make all possessions public property, should be rejected because it injures the very ones whom it seeks to help, goes against the rights of individual persons, and throws the functions of the state and public peace into confusion. Therefore, in seeking help for the masses, this principle before all is to be considered as basic, namely, that private ownership must be preserved.
>
> It is not right, as We have said, for either the citizen or the family to be taken over by the state; it is proper that the individual and the family should be permitted to keep their freedom of action, so far as this is possible without injuring anyone. Nevertheless, the governments must see to it that they protect their citizens, because nature has entrusted their safeguarding to the sovereign power in the state. And, since the power of governing comes from God, it ought to be used according to the example of the Divine power. Therefore, if any injury has been done to or threatens either the common good or the interests of individual groups, it is necessary for the government to step in.
>
> In protecting the rights of individuals, however, special consideration must be given to the weak and the poor. For the rich are guarded by their own defences and are in less need of governmental protection, whereas the suffering masses, without means to protect themselves, need the protection of the state. Since wage workers are numbered among the great mass of the needy, the state must include them under its special care.

Adapted from Pope Leo XIII, *Rerum Novarum: Encyclical Letter on the Condition of Labor* (U.S. Catholic Conference, Washington, D.C.).

New Harmony

Many people looked for other ways to make industry work for the betterment of mankind. This brochure outlined one of these ways--The Utopian Community.

THE CRISIS
(or the change from misery to truth and happiness)



A bird's eye view of one of the NEW COMMUNITIES at HARMONY, in the state of INDIANA, NORTH AMERICA an association of two thousand persons formed upon the principles advocated by ROBERT OWEN.

Reprinted with permission of the Library of Congress.

This site is located in the center of an area of 3,000 acres owned by the community. It is situated upon high land about three miles from the Great Wabash River and twelve miles from the Ohio River. Ships maintain a route between New Orleans in the South and Pittsburgh in the Eastern states on the Atlantic.

Areas marked (A) indicate where the public buildings are located. Between these are the living quarters of the members. In the interior of the square are the botanical gardens and other gardens and also the exercise grounds. All these circumstances are intended to produce greater physical, moral, and intellectual advantages to every individual than have ever been realized in any age or country.

Settlers in New Harmony leave their homes for a day's work in the fields.
Reprinted with permission of The Bettmann Archives, Inc.

The steam engine and spinning machines, and other mechanical inventions, have created evils in society. They have created wealth and placed it in the hands of a few, who acquire the wealth produced by the work of the many. Thus the mass of the population have become mere slaves to the ignorance and desires of the businessmen.

The good which these inventions are supposed to bring people has not yet been realized. The condition of society, instead of being improved, has gotten worse.

Something therefore must be done to give our suffering population the means of gaining the advantages from these inventions which all men of science expect from them...

There is a place where this can be accomplished today. It is at my cooperative community at Harmony in Indiana.... The private dwellings are of one, two, three, or four stories. They are very simple; no kitchen is necessary since everyone is fed in public together. The apartments are always well ventilated ...good sleeping apartments looking over the gardens into the country, and sitting-rooms looking out on the square, afford as much lodging accomodation as desired (by the inhabitants of the community).

The governing of these establishments depends on the parties who form them. Those founded by land-owners and capitalists, public companies, parishes or counties will be under the direction of the individuals whom the powers may appoint.... Those formed by the middle and working classes...should be governed by themselves. Their affairs are conducted by a committee composed of all the members of the association between certain ages--for instance, of those between 35 and 45, or between 40 and 50.... In a short time, the operations become as easy to run as mere recreation....

These establishments are provided with granaries and warehouses, which always contain a supply sufficient to protect the population. Arrangements are made to distribute this wealth among the members of the association who created it.

Adapted from James Hanscom, et al., *Voices of the Past: Readings in Modern History* (New York: Macmillan Company, 1967), pp. 66-67.

Utopian Socialism

At New Lanark there were neat rows of workers' houses with two rooms in every house; there were streets with the garbage neatly piled up awaiting disposal instead of being strewn about. And in the factories, a still more unusual sight greeted the visitor's eyes. Over each employee hung a little wooden sign with a different color painted on each side. Each color represented a different rating for behavior and effort, Most showed white (excellent) or yellow (good).

For another surprise, there were no children in the factories--at least none under the age of ten or eleven--and youngsters who did work, did so for only a short ten-and-three-quarter-hour day. Furthermore, they were never punished; no one in fact was punished; discipline seemed to be handled by gentleness rather than fear. The door of the factory manager stood open and anyone could (and did) present his objections to any regulation. Everyone could inspect the book which contained the detailed report of his work, which was the basis for the colored sign, and could appeal an unfair report. It was a wonderful sight. For the business-minded, less likely to be moved by the sight of happy children, there was the undeniable fact that New Lanark was marvelously profitable.

But Owen did not rest there. He had bigger ideas for the betterment of humanity, which he presented to a special committee of Parliament. Owen suggested forming Villages of Cooperation in which between 800 and 1,200 people would work together to support themselves. The families were to live in grouped houses, with each family to live in a private apartment but with shared play rooms, reading rooms, and kitchens. Children over the age of three were to live separately so that they could receive a proper education. Around the school were gardens to be taken care of by the slightly older children. These would stretch out into the fields for crops. In the distance, away from the living areas, would be the factory unit.

The Objects and Methods of the Fabian Society

The Fabian Society has been formed to persuade the English people to socialize their industries so as to make the livelihood of the people entirely independent of private ownership.

The Fabian Society does not seek to put forward Fabian candidates at elections. But it will try to influence voters to select socialists as their candidates.

Democracy, as understood by the Fabian Society, makes no political distinctions between men and women.

It supports the ordinary citizen's desire for gradual, peaceful changes, as against revolution and conflict with the army and police.

Socialism, as understood by the Fabian Society, means the organization and conduct of the necessary industries of the country shall be controlled by authorities of the government.

Some of the views of Marx and Lasalle* must by this time be discarded as erroneous or obsolete.

The Fabian Society desires to offer to all founders of utopian communities in South America, Africa, and other remote localities its apologies for its impatience of such adventures.

The Fabian Society does not put socialism forward as a cure for the ills of human society, but only for those produced by industrialism and by a radically bad distribution of wealth.

* Ferdinand Lassalle (1825-1864) was a German socialist.

Adapted from Fabian Tract No. 70, London: *The Fabian Society*, 1896, pp. 3-8, cited in S. Eisen and M. Filler, *The Human Adventure*, Vol. 1 (New York: Harcourt Brace Jovanovich, Inc., 1964), pp. 20-22.

Communism in Upper Maruba

Upper Maruba is a small agricultural country in North Africa which gained independence from a European country in 1951. People with many points of view fought for independence. Shortly after independence was won, a small Marxist party (believing in the need to use force to place the Communist Party in power) overthrew the democratically elected government. The Communist Party is now in power. Two people view life under the new system.

Herbert--A Marxist Revolutionary	Henri--Opposed to a Marxist State
1. Political Views We, who overthrew the government controlled by the wealthy, have established a dictatorship of the proletariat (working class). The aim of the Communist Party is to destroy the bourgeoisie and to establish a classless society. 2. Economic Views The government, which represents the people, now owns the means of production and distribution. There will be no classes. All are guaranteed jobs. All will have free medical care and old age pensions. The land belongs to the people. 3. Cultural Views Our aim is to liberate the minds of the workers. Men must think of life of earth. Religion moves them to think of a world beyond ours which does not exist. Since we have come to power, many churches and mosques have become museums for the people. People must think of the workers' revolution. Only recently the fanatic poet Kamuga, with his childish ideas of roaming the earth in search of truth, was sent to a mental hospital for care. The Party will lead the people to see that liberty comes through socialism and communism.	1. Political Views In fighting for independence, I fought for freedom. I believed in laws to improve working conditions. The people elected those who promised gradual change. In overthrowing the government, the Marxists have created a single-party state. Leaders of the opposition parties are now in prison. Is this the freedom I fought for? 2. Economic Views They said that the land would belong to the people. Since the Communists have come to power even many small farmers have been made to give up their land and work on large government-owned state farms. They said that planning by the government would give people more of the necessities of life. Yet there are shortages of meat, milk, and clothing. When workers went on strike for higher wages they were told that unions could not strike against the government and the people. 3. Cultural Views Today, many intellectuals have disappeared from sight. One must belong to the writers union before one can publish, and only those who are trusted by the Party can belong. It seems that I fought for my freedom and lost my freedom.

Japanese Reactions to the West

It is 1853. You are the Emperor of Japan. Admiral Matthew Perry of the United States has recently visited your country asking that you agree to open up trade and allow the Industrial Revolution to enter your country. He said when he left that he would return to receive your answer. Your advisors, who have been discussing the situation among themselves, have sent you the following memo:

MEMO

TO: His Imperial Majesty, The Emperor

FROM: The Special Committee on Trade

SUBJECT: Opening Trade Relations with the United States

Since we were unable to agree on a course of action, Your humble advisors have decided that we must offer Your Majesty a summary of the conflicting views of those in our committee. We hope that even so, our advice will be of some small use to You.

Viewpoint 1. "They Will End by Swallowing Up Japan"

The barbarians have been watching our country with greedy eyes for years. We cannot be frightened now by their lying tricks and give them what they ask for. At first, they will give us new instruments, machinery, and other strange objects. These things will fool ignorant people. Trade is their chief object. Therefore, they will try bit by bit to make our country poor. After that, they will treat us just as they like. They will insult us and will end up by swallowing up Japan. If we do not drive them away now, we shall never have another opportunity.

Viewpoint 2. "Let Us Learn Their Tactics"

Suppose we get into an argument. We shall then have an enemy to fight who will not be easily handled. We are not the equal of the foreigners in the area of industrialism. Let us deal with the foreign countries and learn their skills and tactics. When we have strengthened our nation, it will not be too late to declare war then.

- What would be your decision if you were the Emperor of Japan?

Adapted from Arthur Walworth, *Black Ships Off Japan* (Hamden, Conn.: Shoe String Press, Inc., 1966).

In the columns below, summarize the arguments of the two different groups of nobles:

Viewpoint 1	Viewpoint 2

Subtheme G *Japan: A Case Study* **Worksheet G-2**

What Should the Emperor Do?

In column A, list all the possible actions the Emperor could have taken in response to Admiral Perry's request to begin trade relations with Japan. In column B, write the short range consequences of taking each action. In column C, write the long range consequences of taking each action.

A Possible actions	B Short range results	C Long range results

In the space marked "Your Decision" indicate the decision you would have made if you were Emperor. Indicate two supporting reasons in the appropriate space. (Remember, a decision must be supported by reasons.)

(Your Decision)

_____

(Supporting Reason for your Decision)

(Supporting Reason for your Decision)

Subtheme G *Japan: A Case Study* **Worksheet G-2 (continued)**

Assume you are the Emperor of Japan. Write your decision on opening trade with the United States in the memo below. Include in your memo the reasons for your decision.

Memo From the Emperor

TO: Special Committee of Nobles on Trade

FROM: His Imperial Majesty, The Emperor

SUBJECT: Opening Trade Relations with the United States

Global Times: The Emperor's Decision

Global Times

HEADLINE:

Everyone has pointed out that we are without a navy and that our coasts are undefended. Meanwhile, the Americans will be here again next year. Our policy shall be to _____. For that reason, every possible effort will be made to prepare means of defense. Above all, it is necessary that everyone should be patient. All should keep from getting angry and should carefully watch the way the foreigners behave. If they open hostilities (start fighting), all must at once take up arms and fight fiercely and bravely for our country.

Adapted from Francis L. Hawks, *Narrative of the Expedition of an American Squadron to Japan*, 1856 cited in Sidney Schwartz and John R. O'Connor, *Imperialism and the Emerging Nations* (New York: Globe Book Co., Inc., 1976), pp. 72-73.

One section of type was left out of this edition of the Global Times.

- Which of the following four alternatives would best fit in the empty space?

  (a) meet fire with fire. When Perry's ships sail into our waters again we will sink every last one of them.

  (b) do nothing. Perry will realize there is nothing the Americans can do to us.

  (c) avoid any definite answer to their request. At the same time, we will maintain a peaceful attitude. It may be, however, that they will use violence.

  (d) welcome back the Americans with open arms. There is so much that they can do to help our country.

We Should Teach Each Other

Fukuzawa Yukichi (1835-1902) was one of a group of reformers who joined the Meiji government after it took power in 1868. In the reading below, he outlines the argument for adapting to Western ways:

> Japan is an island country. Since long ago, it has had no relations with foreign countries. It has clothed and fed itself solely with its own produce and never needed another country to survive. But since the arrival of the Americans in the 1850's, foreign trade has begun. Even after the opening of the various ports, there was much disagreement; there were those who demanded closing the country off and throwing out the barbarians, but they were extremely narrow-minded. They were like the turtle who wished to keep its head in a shell. The people of Japan and the Western nations exist in the same world, are warmed by the same sun, look up at the same moon, share the seas and share the air; and they have the same human emotions. This being the case, we should hand over our extra goods to them, and we should take their extra goods. Without shame and without pride, we should both teach each other, both learn from each other. We should assist each other and pray for each other's good fortune. We should establish ties with each other in agreement with the principles of heaven and the way of man.

Adapted from Fukuzawa Yukichi, "Gakumon no susume," written in 1871, in *Fukuzawa Yukichi zenshu*, Tokyo: Iwanami, 1969, 111, pp. 29-31 translated by Richard H. Minear. Cited in *Through Japanese Eyes*, ed. by Richard H. Minear, Vol. 1 (New York: Praeger Publishers, 1974), pp. 72-76.

1. For each of the following statements from the passage above, write the letter "F" in the appropriate space if the statement is a fact, and write the letter "O" if the statement represents the writer's opinion.

_____ A. Japan is an island country.

_____ B. For many years, we had no relations with other countries.

_____ C. Since the arrival of the Americans, foreign trade has begun.

_____ D. Those who demanded the closing of the ports were extremely narrow-minded.

_____ E. We should hand over our extra goods to them (the foreign traders) and we should take their extra goods.

_____ F. We should establish ties with each other.

2. Write a paragraph describing what may have influenced the writer's opinions. Consider how the writer earns a living; whether or not the writer has had personal experience with foreign traders; and whether the writer is an optimist or a pessimist.

3. Are your answers (to question 2) based on fact or opinion? Explain why.

Roots of Japanese Industrialism

The Samurai

By the nineteenth century, the samurai (who were like Europe's feudal knights), worked as estate managers for the daimyo (the great lords) rather than as soldiers. It was their responsibility to see that the lord's land produced enough income to pay for splendid mansions both on the estate and in Edo (now Tokyo), which was the shogun's capital city. Although rice was the principal source of income, some samurai encouraged cultivation of cotton, hemp, mulberry trees (to feed silkworms), indigo (for dye), tea, and tobacco. They developed industries for making such diverse products as paper, porcelain, and gunpowder.

The samurai estate managers were part of a system for ruling Japan that had been almost unchanged since early in the 17th century. At the top of society were the few great lords and their families; beneath them were the samurai, who were loyal to their lord in the same way as the medieval knights. Next came the farmers who produced the rice by which wealth was measured (a lord's income was counted not in money but in amounts of rice; samurai were paid in rice). Lowest on the social scale were the townspeople--the merchants and craftsmen. The most powerful of the daimyo families ruled the country in the name of the Emperor, who lived quietly in Kyoto, far from Edo (Tokyo), the real center of power. Everyone paid him enormous respect, but he had nothing to do with the actual running of the country.

The social system was based on keeping each person in his or her place, and the economic system was based on the growing of rice. When all of this collapsed in 1868 because of pressure from inside (merchants had become wealthier than lords and samurai) and from outside (Americans and Europeans were coming to the Far East in search of trade and empire), the samurai suddenly found themselves without jobs. The wiser and more ambitious samurai took their management skills into the new government offices, the new modern army, the new government subsidized industries, and even business.

The Merchants

Another push to modernize came from the Japanese merchants. They cheerfully acted as agents in dealing with farmers and disposing of crops. They developed efficient bookkeeping systems. They turned Edo and Osaka into great trading markets. Success brought pride, and merchants were no longer content to be the lowest social class. They began to promote the idea that business is good for society. Because they were not allowed to show their wealth by fine clothes and great houses and were forbidden to mix in politics, the merchants had that much more time and money for building up their businesses.

The Educators

A third significant element in Japan's rapid modernization was the popularity of education in the mid-nineteenth century. Most of the great estates had schools for samurai. Townspeople thought enough of education to support full-time private teachers. By the 1860's, 40% to 50% of all Japanese boys and 15% of the girls were getting some formal education outside of the home.

The government could communicate effectively with a population that could read and write. A unified compulsory education system was set up in 1872 (just two years later than in England) without opposition.

The New Government Leaders

The new government leaders sent study missions to Europe and to America and then chose from each whatever system or way of doing things they thought was best for Japan. They based their army on that on one country, their government on that of another. They brought in experts from other nations to help build railroads and factories, to create the new army, a postal system, roads, and modern city buildings; they brought in teachers to start modern schools, and imported the newest gadgets from everywhere. But once the foreign experts had done their jobs they went home. All that they had taken in, the Japanese now took apart, studied, and changed to fit their own needs, or improved upon so that the products they exported were just a little bit better or a little bit cheaper and could compete in world markets.

- Describe the contributions of each of the following in building Japan into a major industrial power.

RATING: GROUP:

____ Samurai:

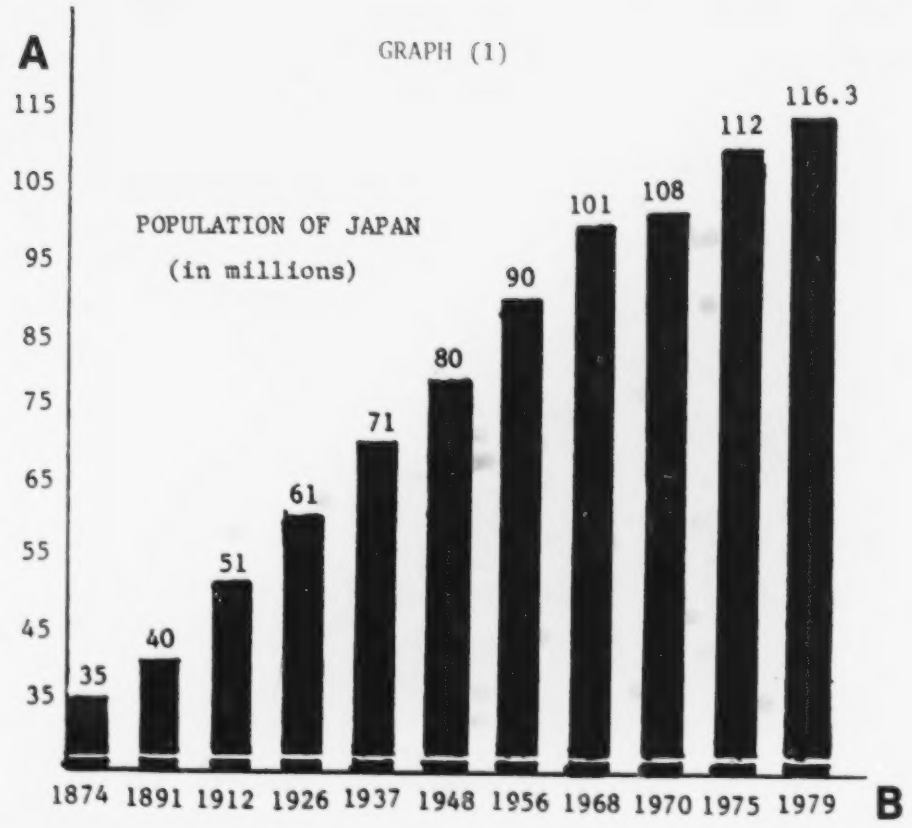
____ Merchants:

____ Education:

____ Government:

Adapted from The Asia Society, *Open Doors: Contemporary Japan* (New York: The Asia Society, 1979), pp. 133-135.

Population



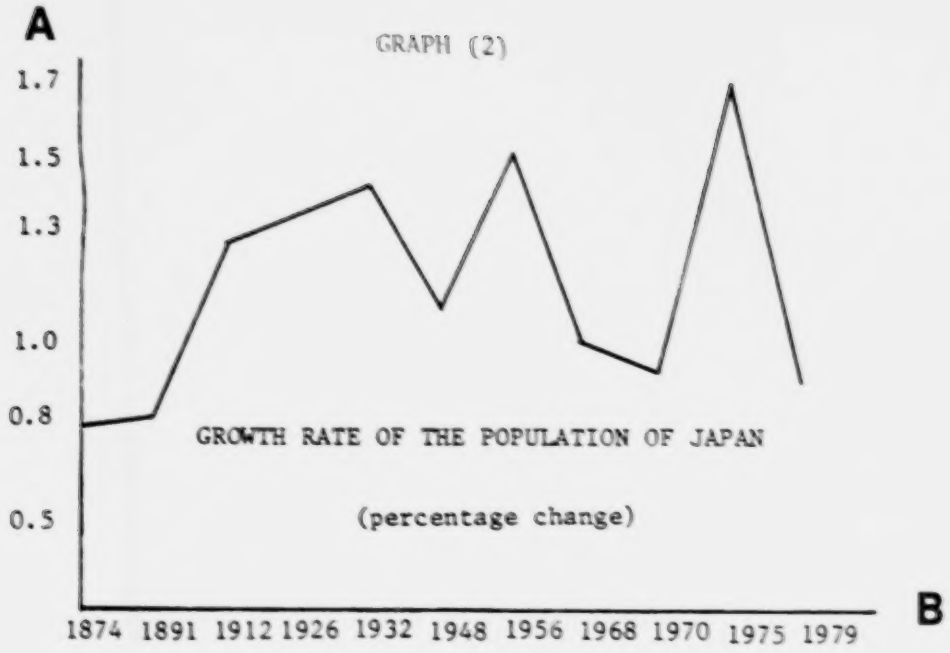
1. What is the title of this graph? _____

2. What information is provided on each scale?

   Scale A _____ Scale B _____

3. In which period did Japan's population experience the greatest increase?

   _____



1. What is the title of this graph? _____

2. What information is provided on each scale?

   Scale A _____ Scale B _____

3. In which period did Japan's growth rate increase the most?

   _____

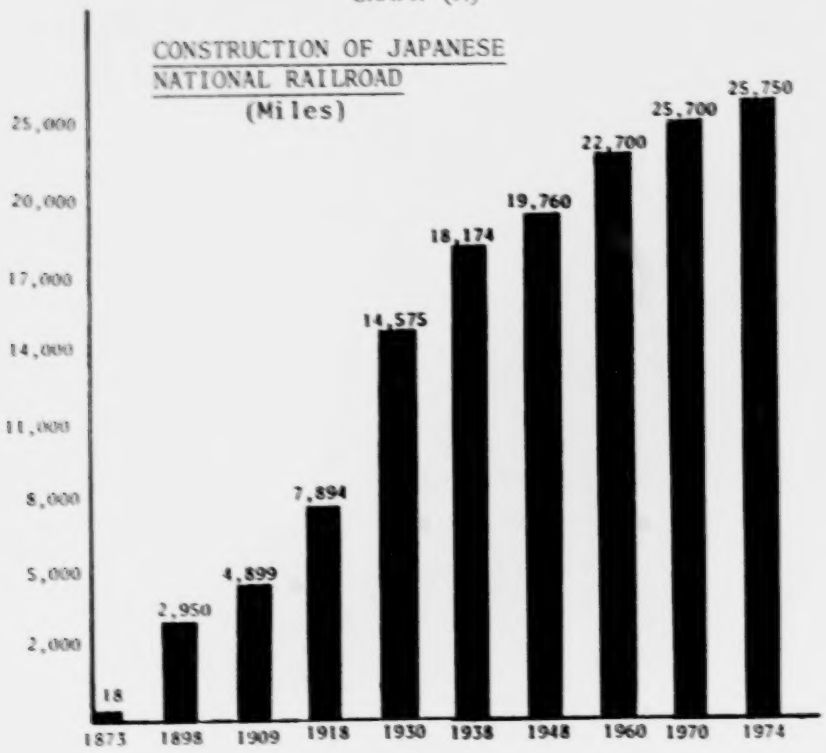
4. How is graph 2 different from graph 1? _____

   _____

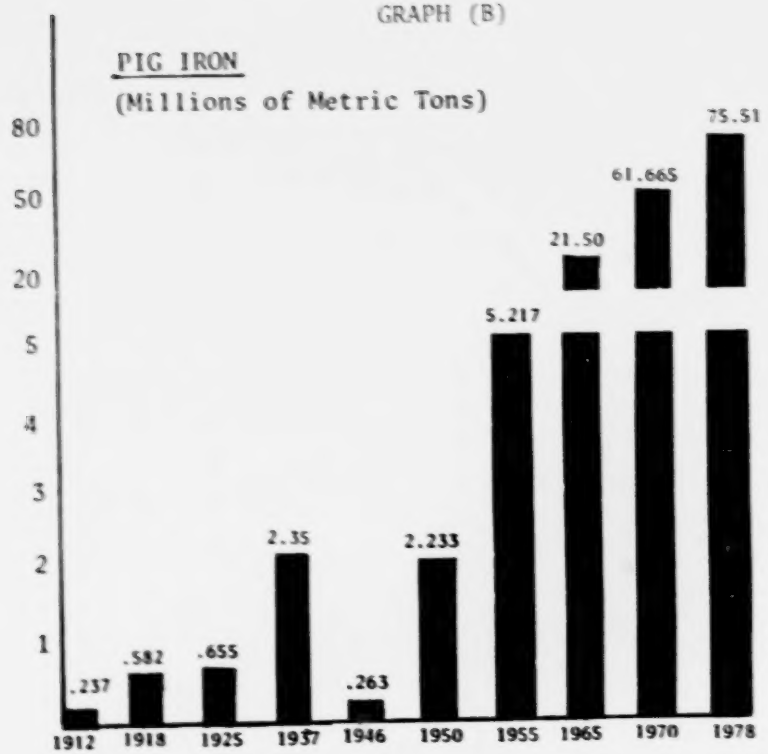
Data from *Statistical Handbook of Japan, 1980* (Statistics Bureau, Prime Minister's Office), p. 16.

Production and Construction

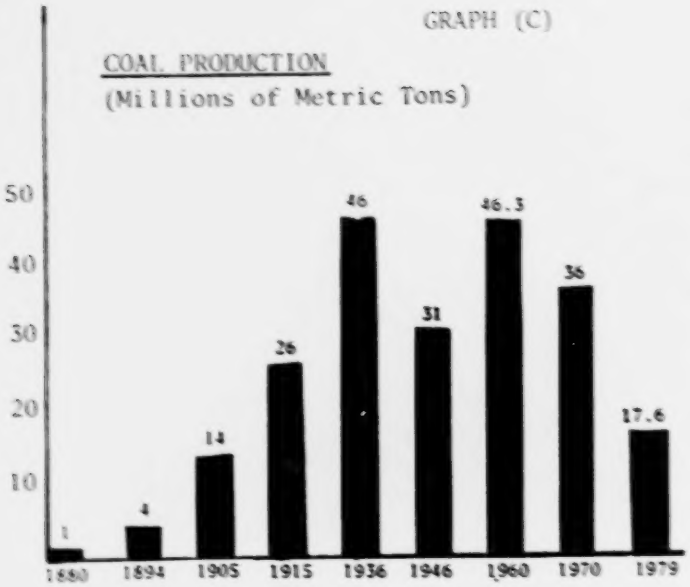
GRAPH (A)



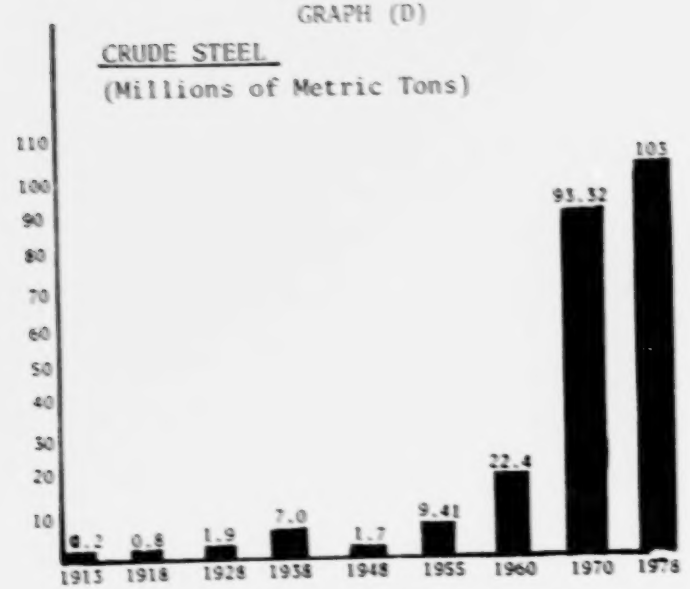
GRAPH (B)



GRAPH (C)



GRAPH (D)



1. What are the titles of graphs A, B, C, and D? _____

_____

_____

_____

2. What does each graph measure? _____

_____

_____

_____

_____

3. Which of these graphs is most different from the others? _____

4. How can you explain the difference? _____

_____

5. What statement can you make about the Industrial Revolution after looking at these graphs? _____

_____

6. Which of these graphs best explains the reasons for Japan's industrial revolution? _____

_____

Data for charts on Worksheets H-7 and H-8 comes from the following sources:

W. G. Beasley, *The Modern History of Japan*, 2nd edition (New York: Holt Rinehart & Winston, Inc., 1973), p. 305.

Harold G. Moulton, *Japan, An Economic and Financial Appraisal* (New York: AMS Press, 1969), pp. 546-563.

Wladimir S. Woytinsky and Emma S. Woytinsky, *World Population and Production* (New York: Twentieth Century Fund, Inc., 1953), pp. 868, 1167.

A Statistical Survey of the Economy of Japan, 1953-1971 (Ministry of Foreign Affairs, 1971), pp. 25, 255.

Hundred Year Statistics of the Japanese Economy (Bank of Japan, 1966), pp. 53, 114-117, 118.

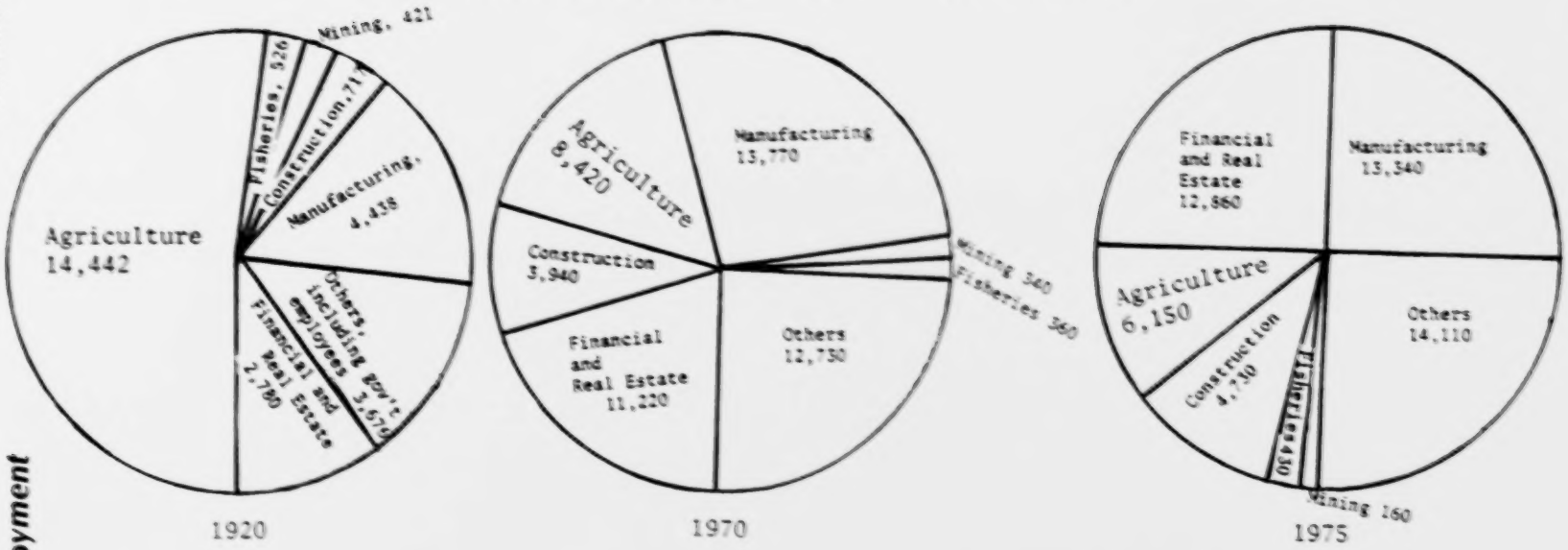
Statistical Handbook of Japan, 1980 (Statistics Bureau, Prime Minister's Office), pp. 16, 40, 46, 52, 71.

Statistical Handbook of Japan, 1978 (Statistics Bureau, Prime Minister's Office), pp. 113-115.

The Europa Yearbook, Vol. II (Europa Publications, Ltd., 1977), pp. 832-833.

The Japan Economic Yearbook, 1952-1981 (The Oriental Economist, Publishers, 1981), pp. 79, 82, 132, 141, 209.

EMPLOYED PERSONS, by industry (in thousands)



1. What is the title for these graphs? _____

2. Each graph represents a different _____.

3. In 1920, most Japanese were employed in which area? _____

4. In 1970, most Japanese were employed in which area? _____

5. What conclusions can you draw? _____

_____

6. In 1975, most Japanese were employed in which area? _____

7. What predictions can you make for the future? _____

_____